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EDITED BY

CHARLES A. LEE, M.D.

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TO READERS AND CORRESPONDENTS.

Our next number will contain papers by Prof. Beck and Drs. Bliss, Ludlow, Batchelder, Davis, Vanderpool, the late Dr. S. Forry, Drs. Collins, Stewart, and the Editor; Dr. Williams, of Deerfield, Prof. Koeppen, of Greece, and several others.

☞ An apology is due to Dr. Jarvis, U. S. A., for an editorial paragraph in our March No. in relation to his very interesting communication from Monterey, in which we expressed our acknowledgments to Dr. Moses, U. S. A., for "revising" the same. The word *revise* was unsuited to the occasion, as Dr. M. merely copied the article verbatim for the press, which was hastily written amidst the bustle of a camp life, and on both sides of the sheet; this was done merely to facilitate setting up, and not because the article needed, or received any corrections at his hands. Dr. Jarvis is widely and favorably known in this city as a most accomplished physician and surgeon, and an ornament to the service in which he has been so long engaged. We make this explanation in justice to both these gentlemen, whom we are happy to number among our friends and contributors.

Communications for our next should be sent in early in August.

Our acknowledgments are due the "Brooklyn Medical Association," for selecting this Journal as the medium of communicating their proceedings to the profession.

The following works have been received since our last:

Medical Botany, or Descriptions of the more important Plants used in medicine, with their History, Properties, and mode of administration. By R. Egglesfeld Griffith, M. D., etc., with upwards of 300 illustrations. Philadelphia. Lea & Blanchard. 1847. 8vo., pp. 704. (From the Publishers.)

The Standard Pronouncing Dictionary of the French and English Languages, in two parts. By Gabriel Surenne, V. A. S. E. New-York. D. Appleton & Co., 200 Broadway. 1846. 12mo, pp. 834. (From the Publishers.)

Experimental Researches on the Food of Animals and the Fattening of Cattle, with Remarks upon the Food of Man; based upon Experiments undertaken by order of the British Government. By R. D. Thomson, M. D., Lecturer on Practical Chemistry, etc. New-York. D. Appleton & Co. 1846. 12mo., pp. 172.

Chemistry in its Application to Agriculture and Physiology. By Justus Liebig, M. D., F. R. S., etc. From the 4th London edition, revised and enlarged. New-York. Wiley & Putnam. 1847. 12mo., pp. 401.

Dogs: their Origin and Varieties; Directions as to their general management, with numerous Original Anecdotes. Also, Simple Instructions as to their Treatment under Disease. By H. D. Richardson. With many illustrations. D. Appleton & Co. 12mo., pp. 127.

The Annual Address to the Candidates for Degrees and Licences in the Medical Institution of Yale College, Jan. 20, 1847. By Rufus Blakeman, M. D. New-Haven. 1847. 8vo., pp. 24. (From the Author.)

Discourse on the Evidences of the Power of Small Doses and attenuated Medicines, including a theory of potentization. By B. F. Joslin, M. D., of New-York. New-York. 8vo., pp. 18. (From the Author.)

Fifty-first Annual Commencement of the New-Hampshire Medical Institution, Dartmouth College, N. H., May, 1847. pp. 7.

The Treatment of Insanity. By John M. Galt, M. D., Superintendent and Physician of the Eastern Lunatic Asylum of Virginia, at Williamsburgh.—New-York. Harper & Brothers. 8vo., pp. 579. (From the Author.)

The Medical Student's Vade Mecum, or Manual of Examinations upon Anatomy, Physiology, Chemistry, Materia Medica, Surgery, Obstetrics, Practice of Medicine, and Poisons 2d edition, revised and enlarged. By George Mendenhall, M. D., etc. Philadelphia. Lindsay & Blakiston. 1847. 12mo., pp. 574. (From the Publishers)

A Treatise on the Practice of Medicine. By George B. Wood, M. D., Professor of Materia Medica and Pharmacy in the University of Pennsylvania. In two vols. Philadelphia. 1847. 8vo., pp. 798, 840.

Valedictory Address to the Class of Medical Graduates of the University of Pennsylvania, on the 3d of April, 1846. By William Gibson, M. D., Professor of Surgery in the University of Pennsylvania. Philadelphia. 1846. 8vo., pp. 16. (From the Author.)

Valedictory Address to the Graduates of the Medical Department of Pennsylvania College, session of 1846–7. By W. L. Atlee, M. D., Professor of Chemistry. Philadelphia. 1847. 8vo., pp. 19.

Two Addresses, delivered before the New-York State Medical Society, in the Assembly Chamber of the Capitol at Albany, Feb. 2, 1847. By John M'Call, M. D., President of the Society. Albany. 8vo., pp. 20, 17.

Catalogue of the Organic Remains. and other Geological and Mineralogical articles, contained in the Collection presented to the New-York Lyceum of Natural History By Samuel L. Mitchill. New-York. 1846. 8vo., pp. 40. (From the Secretary of the Lyceum.)

Annual Circular of the Medical Institution of Geneva College, session of 1847. 8vo., pp. 12.

A brief Sketch of the Commerce of the Lakes, etc. By James L. Barton, Esq. Buffalo. 1847. 8vo., pp. 80. (From the Author.)

Some Account of the Letheon, or Who was the Discoverer? By Edward Warren. 2d edition. Boston. 1847. 8vo., pp. 79.

Ollendorf's New Method of Learning to read, write and speak the French Language, with an Appendix, etc. By J. L. Jewett. New-York. D. Appleton & Co. 1846 12mo , pp 498. (From the Publishers.)

The Pathalogical Anatomy of the Human Body. By Julius Vogel, M.D., Professor of Clinical Medicine at the University of Giessen. Translated from the German, with additions. By George E. Day, M. A. and L. M., Cantab, etc. Illustrated by upwards of 100 plain and colored engravings. Philadelphia. Lea & Blanchard. 1847. 8vo., pp. 533.

Transactions of the Medical Society of the State of New-York, Vol. VII., Part I. Albany. 1847. 8vo., pp. 82.

Proceedings of the Academy of the Natural Sciences of Philadelphia, Jan. and Feb., 1847. Vol. III., No. 7. 8vo.

Teeth: their Structure, Diseases, Treatment. Illustrated by numerous engravings. By John Burdell, Dentist. New-York. 1847. 12mo., pp. 72.

☞ Several pages of interesting foreign intelligence have been crowded out, to make room for the Reports adopted by the late National Medical Convention. Their publication will be concluded in our next.

THE NEW YORK

JOURNAL OF MEDICINE.

FOR JULY, 1847.

PART FIRST.

Original Communications.

Art. I.—*On the Effects of Blisters on the Young Subject.* By John B. Beck, M. D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of New York.

It has frequently struck me that a treatise, describing with the necessary precision, the peculiarities of the effects of medicinal agents on the young subject, as distinguished from their effects on the adult, has long been needed in our profession. As yet I know of no such work. The systems of Materia Medica, valuable and elaborate as they are, and in which we should naturally look for the requisite information, are confessedly deficient on this subject. The consequence is, that the young practitioner who depends upon them, finds himself continually embarrassed in the treatment of the diseases of children, and he is obliged after all, to rely upon the incidental observations gathered from works on general practice, or upon the slow accumulation of his own observation. Even works professedly on the diseases of children, do not supply the want. They indeed specify doses suitable to the age, and now and then give cautions in relation to the use of certain medicines, but they do not enter into the philosophy of the subject as it ought to be engaged upon. It is treated by them more as a matter of enlightened empiricism, than as one founded on sound and rational physiological and pathological principles. In some previous papers, I have endeavored to offer some contributions on this subject, and should they be the means of inducing some experienced hand properly to elaborate it, it appears to me that a greater practical benefit could not be conferred on the profession. On the present occasion, I propose to make *Blisters* the subject of a few remarks.

The first peculiarity attending the operation of blisters on the young subject is, *that they produce their effects in a shorter time than they do in the adult.* This is a fact well known to every practitioner. While in the adult, they do not produce their effects until from eight to twelve or even more hours have elapsed, in the child the same takes place in from two to six hours. In this respect there is a striking difference between blisters and most other remedies. Emetics and cathartics, for example, do not appear to act with any more rapidity on the child than they do on the adult. Now this fact, of the more prompt action of this class of agents, upon the child, although a simple one, is nevertheless one of great importance, and one which should be continually borne in mind. It has a practical bearing, not merely upon the mode of conducting the process of blistering in young subjects, but also upon the use of it in their various diseases.

The second peculiarity is, *that the local inflammation produced by a blister is greater in the young subject than in the adult.* The reason of this is obvious. In infancy, the skin is more delicate in structure, has greater vascularity, and a higher degree of sensibility; all circumstances favoring the development of greater inflammation. The local impression, accordingly, made by a blister, is not merely more rapidly developed in the young subject, but it is also more intense.

The third peculiarity is that in young subjects *blisters are more apt to be followed by the injurious consequences of inflammation, such as ulceration, gangrene, and even death.* Numerous and melancholy instances of this are to be found on record. Dr. Ryan, speaking of the use of blisters in children, says, "I have seen a blister on the chest followed by sloughing, and an aperture form over the epigastrium, which exposed the subjacent viscera."* Dr. Thompson states, that he "has seen gangrene and death follow the application of a blister on an infant."† Dr. North states that he has "twice known infants destroyed in consequence of the sloughing of blisters, the progress of which could not be arrested."‡ Professor Chapman remarks, that in children a blister "sometimes induces gangrene, as I have witnessed in two or three instances."§ My friend Dr. W. C. Roberts informs me, that he has met with two cases in which children sank under the effects of blisters. Numerous other facts of a similar character might be adduced to show the disastrous effects which sometimes result from the application of blisters to children; and to the minds of many physicians it constitutes a serious objection to their use in their diseases. Dr. Armstrong says, "I have a great dread of the application of blisters to infants, on account of what is called the local and constitutional irritation."‖ Now these occurrences may and do take place also in the adult, but they are comparatively rare, and only under very peculiar conditions of the system. In infants on the contrary, they are by no means uncommon. In any child, however healthy, they may occur from the simple cause of their being left on too long. They are more likely to take place however, in certain conditions of the system or of the skin itself. Thus, for example, in cases where a child is greatly emaciated, or the constitution broken down from various causes, the inflammation of a blister is very apt to become unhealthy in its character, and to be followed by injurious consequences. Then again, where the skin itself is in a diseased state, it is much more likely to happen than in the healthy conditions of that surface.

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* Manual of Midwifery, &c. By Michael Ryan, M D. p. 476.

† Materia Medica. By Anthony Todd Thompson, M. D. Vol. II., p. 535.

‡ Practical Observations on the Convulsions of Infants. By John North, p. 202.

§ Elements of Therapeutics, &c. Vol. II., p. 28.

‖ Lectures, p. 362.

The fourth peculiarity is, *that the constitutional excitement produced by blisters is generally greater in young subjects than in the adult.* That this must necessarily be so is obvious. In all cases, the general excitement must be in proportion to the degree of local irritation and the sensibility of the patient's system. If so, the general vascular and nervous excitement produced in the child by a blister, must, as a matter of course, be greater than in the adult. So powerful indeed is the impression thus made sometimes, that convulsions have been produced from this cause. Dr. North says: "I have frequently seen very severe paroxysms (of convulsions) brought on in consequence of their injudicious and unnecessary application."*

From the whole of the foregoing, it is evident that blisters are much more powerful in their agency upon the young subject than upon the adult. They operate with more rapidity—cause a greater degree of local irritation and constitutional excitement—and their operation is frequently followed by consequences which rarely occur in the adult.

If such be the case, it appears to me that some conclusions may be drawn of no inconsiderable practical importance.

1. If blisters are more powerful in their action upon children than adults, then it would seem to follow that they may be rendered more efficient as a means of cure in their diseases. And such appears to me to be really the fact. In all cases, where their revulsive agency is required, and where they are properly applied, it has struck me, that more decided benefit has resulted from their use in children than in adults, and that too, under circumstances as nearly similar as they well could be. Besides acting more powerfully the rapidity of their operation in children, gives them a great advantage in many cases. We all know that one of the great objections to a blister in the adult, sometimes at least, is the length of time which it takes to produce its effects. In a child this is in a great measure obviated, and we have in a blister not merely a powerful but a comparatively speedy counter-irritant. As remedial agents therefore, in the diseases of children, it seems to me that they ought to hold a high rank. I am aware, that by some an opinion, entirely the reverse of this is entertained. Mr. North, in his valuable work on the Convulsions of Infants, states that he thinks, that except as stimulants, in depressed states of the system, blisters are alogether objectionable in the diseases of children. As revulsives in cases of local inflammation, he regards them as having gained a character which they do not merit, and that in fact they do more harm than good. On this subject he says, "the period at which we apply blisters in local inflammatory affections is not to be forgotten. We first subdue the severity of the disease by other and appropriate remedies, and when it is upon its decline, when in all probability the unassisted powers of nature would successfully perform the remainder of the task, a blister is applied. The patient gets well, notwithstanding the additional pain thus inflicted; and the fortunate result of the case, which is really to be attributed to the measures previously employed, is said to be owing to the good effects of counter-irritation, &c., and the blister gains a character, to which in point of fact it has no claim."† Now all this may no doubt be true in some

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* Observations on the Convulsions of Infants. By J. North, p. 209.

† Observations on the Convulsions of Infants. By John North, p. 205—6.

cases, but that it is so generally, can hardly be admitted. It should be recollected, that in the treatment of local inflammations, blisters are only auxiliary remedies. Of themselves, and alone, capable of doing but little, and yet when cooperating with other agents, such as blood-letting, &c., exceedingly powerful and valuable. Every one knows that there are periods and conditions in the career of inflammatory complaints, when bleeding and other reducing remedies have been carried to the fullest extent deemed advisable, and yet sufficient disease may remain, if not to destroy life, yet to render convalescence tedious. or to lay the foundation of subsequent chronic disease. This of course it is all important to obviate. Now it is just under this condition of things that blisters come in with great effect, and frequently break up completely the remaining vestiges of disease, and in this way I look upon them as remedies, acting with more power and efficiency in children even than in adults.

2. From the fact of blisters being such powerful agents, and especially from the fact of their being so liable to be followed by dangerous consequences, more caution is required in their use in children than in adults. Important and valuable as they are and may be made, if properly used, their indiscriminate application cannot be too much reprobated. Just in proportion to the good they are capable of accomplishing under proper circumstances, is the evil which results from them, if heedlessly or injudiciously resorted to. It is to be feared that this is not always borne in mind as it should be. As a general rule, they should never be resorted to, especially in very young children, unless some decided benefit is anticipated from them.

3. The mode of conducting the process of blistering in a young subject is a matter of greater nicety, and should call for the utmost care on the part of the practitioner. As one of the principal causes of gangrene, is the leaving the blister on too long, this is a point which should be specially attended to. To many this may appear a small matter, but it is really one of great moment, and in relation to which I am sorry to say that the directions given in many of our practical works are so discordant, as to be very poor, if any, guides to the young practitioner. By way of illustration, I will quote a few of them. Dr. Armstrong says, "from twelve to sixteen hours is generally sufficient for the application of the blister in adults, and half that period in children."* Dr. Williams says, that "to avoid gangrene in children, it is advisable never to allow the blister to remain on more than six hours."† Dr. Dewees states that "in children, the blister is frequently found to have performed its duty in eight hours, and very often in six. It should therefore, always be examined at these periods, and dressed, if sufficiently drawn; if not, it should be suffered to remain until this take place."‡ Evanson and Maunsell say, "in no instance is the blister to be left on more than a few hours (from two to four)—not longer, in fact, than until the skin is reddened, when vesication will follow; but this result should not be waited for, as attendants always will do, unless the most express directions to the contrary be given."§ Neligan directs that "as a

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* Lectures, &c. By John Armstrong, M. D., p. 362.

† Cyclopædia of Practical Medicine. American Edition. Vol. I., p. 529. Art. Counter-irritation.

‡ Practice of Physic. By Wm. P. Dewees, M. D., p. 28.

§ A Practical Treatise on the Management and Diseases of Children. By R. T. Evanson, M. D., and H. Maunsell, M. D., p. 107.

general rule, in infants and young children, blisters should only be left on until redness of the surface is produced, when the application of a warm poultice to the part will cause vesication."* Ballard and Garrod remark, that in children a blister should not be allowed to remain on longer than to produce redness of the surface; and they add, "in very young infants, it has appeared to us doubtful whether even redness should be permitted to occur before its removal."† The foregoing is a sample of the discrepancy of opinion in relation to a most important point of practice, and one confessedly too, not unfrequently involving the life of the young subject, as advanced by authors of the highest respectability, and who may be supposed to exert a wide influence in guiding the practice of young beginners in our profession. The fact is, and this perhaps may account somewhat for the difference of opinion just noticed, that no positive rule can be laid down in relation to the precise time that a blister should be left on a young child. From the original differences in the sensibility of the skin in children, the period must necessarily vary, and the only safe general rule, is to be governed by the actual effect produced. For this purpose the blistering plaster should be raised at suitable intervals and the state of the skin observed. And the safe plan is, according to the directions of some of the authors quoted above, to remove the blister as soon as the surface appears uniformly red, and then to apply a soft poultice. In most cases this will be followed by suitable vesication, while any injurious consequences will be averted.

It is not my intention in this paper to go into the minutiæ of conducting the process of blistering, but there is one other point which I cannot help noticing, and that is, the practice which is so common with some of covering the blistering plaster with dry fly-powder. Although intended to make the blister more potent, it frequently has a directly contrary effect, from the fact that the blister does not adhere so closely to the skin; over and over again have I seen blisters prepared in this way fail in producing the desired effect, although left on even longer than the usual period. Then again, the dry powder is apt to adhere to the skin after the blister is removed, and in this way strangury is more likely to be produced. In one case, according to Ure, sphacelus has occurred from this cause.‡ As apothecaries are very apt to prepare blisters in this way, it is important that practitioners should be on their guard to prevent it. With regard to the dressing of a blister, always a matter of importance to the young subject, and frequently so to the adult, I would call the attention of the reader to a mode very recently recommended by Dr. D. Maclagan, of Scotland, which holds out many advantages over the ordinary method. After leaving the blister on for a suitable time, he applies a poultice of bread and milk for two hours. After discharging the serum, a thick layer of soft cotton wadding is applied over the part, with the undressed or wooly surface next the skin. If in the course of a few hours this should become soaked with the serous discharge from the blister, so much of the cotton may be removed as can be done without disturbing the loose epidermis beneath, and the whole again covered with a dry layer of cotton. This is all the dressing which in general is requisite. The cotton is allowed to stick to the skin of the blistered part, and when a fresh layer of epidermis is formed, which takes place very readily, the old epidermis and cotton come off together, leaving a smooth whole surface below.

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* Medicines, their uses and mode of administration. By J. W. Neligan, M. D., p. 202.

† Elements of Materia Medica and Therapeutics. By Ed. Ballard, M. D., and A. B. Garrod, M. D., p. 457.

‡ A Practical Compendium of the Materia Medica, &c. By Alexander Ure, M. D., p. 31.

The advantages of the above mode, according to Dr. M., are first, "that it renders the blister much less painful and annoying to the patient than when unguents are used. The tenderness in fact is comparatively so trifling, and the protection by the cotton so good," he says, "that I have been enabled without annoyance to the patient to percuss freely, and apply the stethoscope firmly over blistered parts, which had been dressed for the first time only an hour or two previously; secondly, the blisters heal faster under it than under dressings with cerate: for although the cotton may remain adhering for some days, I have generally found, that within twelve hours the patient ceases to feel the blister a source of annoyance. Lastly, it dispenses with the greasy applications so disagreeable to patients of cleanly habits." *

4. To obtain the good and avoid the evils of blisters, it is evident that a nicer discrimination of the conditions of the system is necessary in the use of this class of agents in children than in adults. Long experience has established the fact that it is only under certain states of the system, that blisters can be used with any prospect of advantage. If this be true in the adult, it is doubly so in the young subject, and any mistake in this respect is much more likely to be followed by injurious consequences in the latter than in the former. Now the conditions which influence the effects of these agents, are the state of the skin, and the state of the nervous and vascular systems. With regard to the skin, it may be laid down as a general rule, that when blisters are used as revulsives, the part to which they are applied should be as nearly as possible in a state of perfect health. In this state, the irritation of blistering may be established even in a child with comparative safety. On the contrary, when the skin is in a morbid state, ulceration and gangrene are by no means unusual occurrences. All this is occasionally illustrated in scarlatina and measles. Mr. Pereira mentions that he has seen "two instances of death from the gangrene caused by applying a blister after measles." † My friend Prof. Dunglison, in his valuable work on Materia Medica, states that he has seen "several cases of death manifestly caused by the use of blisters in scarlatina and measles." ‡ Other facts of a similar character might be adduced, but the preceding are sufficient to show the tendency which there exists in this state of the skin to take on unhealthy inflammation. And the reason is to be sought for in the changed condition of the skin. During the febrile stage of these diseases the skin is preternaturally injected and excited. As soon as the fever subsides and the eruption recedes, the skin is left in a state of debility—a state in which, as we all know, inflammation is very likely to terminate unfavorably. I hope it may not

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* Edinburg Monthly Journal of Medical Science, May 1847, p. 834.

† Materia Medica, Vol. II., p. 775. American Edition.

‡ Vol. II., p. 219.

be inferred from the preceding, that I mean to express the opinion that blisters ought never to be used in such cases as measles and scarlatina—but the possible occurrence of such consequences ought to make us exceedingly cautious about the manner of using them, and indeed ought to deter us from using them at all, unless under a manifest necessity. In every case, therefore, before applying blisters to young children, the condition of the skin ought to be attended to.

With regard to the state of the system, this is even still more necessary to be inquired into. Indeed this is all important, if we hope to realize any of the expected benefits from these agents. Now there are two states of the system almost equally unpropitious to their use—and these just the reverse of each other. The first is that in which high inflammatory excitement is present. That this is unfavorable to the legitimate operation of a blister as a revulsive, is obvious, if we reflect for a moment upon the effects of this agent. These are, local irritation and general excitement. Now in all cases where an internal inflammation exists, the difficulty of resolving it by any means will be proportioned to the degree of general excitement accompanying it. If a blister be applied where this general excitement is already very great, one of the necessary consequences will be to augment this so greatly as to counteract, in a greater or less degree, according to circumstances, the beneficial effects of the blister as a revulsive. Under this condition of things, the internal inflammation will be aggravated instead of abated, in consequence of the increase of general excitement. Hence the fact has been generally observed, that if blisters are applied in the early periods of inflammatory complaints, or before suitable evacuations have been resorted to, they frequently do more harm than good. They merely add fuel to the fire.

On the other hand, a state of great constitutional exhaustion and emaciation is also unfavorable to their operation. The reason here, however, is entirely different from that in the preceding case. The danger here is that from the impaired state of the vital energies, the local inflammation of the blister may be followed by ulceration, gangrene and death. In the use of blisters, therefore, both these extremes should be carefully avoided. With regard to the condition most propitious to their use, it is that in which the general excitement is rather below than above the natural standard. When this is the case, there is less danger from any increase of excitement, while the system is in the state most favorable to the transfer of irritations from one part to another. Now all this is applicable to the adult, and we can easily see how much more so it must be in the case of the irritable and sensitive infant.

5. In the use of blisters in children, especial reference should be had to the peculiarities of their temperament and constitution. This is more important perhaps than it may at first sight appear. Every practitioner must have observed the extreme suffering which adults sometimes undergo from the irritation of blisters. In nervous and irritable habits I have myself seen a state of things thus induced, little short of phrenzy. In children of nervous temperaments all this is much more likely to happen, and accordingly greater caution should be exercised.

If the foregoing conclusions be founded in truth, they would seem at once to expose the impropriety of the practice of resorting to the use of blisters on every trifling occasion, in the management of the diseases of children. There is an opinion prevalent—how it has originated I know not, that blisters are innocent remedies—if they do no good, they can do no harm. Now this is unquestionably a great error, and has been productive of vast mischief. Independently of the unnecessary suffering which they may occasion, they sometimes produce death by the manifest causes of ulceration and gangrene, while in others they insidiously aggravate the disease they were intended to relieve.

ART. II.—*Proceedings of the Brooklyn Medical Association.*—(Prepared by Drs. MITCHELL, CRANE and TRASK, a committee appointed for the purpose.)

FIRST REGULAR MEETING, December, 1847.

DR. HENRY read a paper of which the following is an abstract:

During the month of September, C. D., a girl aged 10 years, while convalescing from a severe attack of remittent fever, was seized suddenly with pain in the gastrocnemius muscle of the left leg, occupying all the fleshy portion, with loss of motion and extreme pain on any attempt at moving the limb. There was great irritability and night sweats, for which 1 gr. sulph. quinine was prescribed every 4 hours. The amendment of the symptoms was thenceforth rapid, all the functions were properly performed, and the leg which had hitherto been immovable, could be drawn up to the abdomen with ease.

After several days, (Nov. 26), all the symptoms returned in an aggravated degree. There was so exquisite a tenderness to the touch as to cause a dread of the approach of any person to the bedside; the sensitiveness not being confined to the seat of original attack, but involving the whole limb from the hip to the toes, and also the inguinal glands, which were slightly enlarged and excessively tender; the pain much increased on any disturbance of the limb. The whole limb was much enlarged, the skin natural in appearance and temperature; appetite good, bowels regular, tongue slightly red and smooth, pulse 100, no thirst.

November 27. Limb enlarged to double the size of the other, although the pain and tenderness are confined to no particular portion of the limb, yet she points to the glands of the groin as the part at which motion produces excruciating torture; the color of the affected limb was perhaps a little whiter than that of the sound one, and there was not the slightest redness at any point; no œdema. She complained of some pain in the right hip-joint on motion, and on examining the spine some tenderness was detected in the lumbar region, due perhaps to long confinement to the recumbent posture; pulse 112; in other respects same as day before. Up to this date, frictions with camphorated oil, when they could be borne, had been freely employed; and opiates freely administered. Ung. hydrar. was then directed to be rubbed into the limb.

November 28. Comparatively comfortable; no pains except when moved.

December 1. Limb still tender to touch, and in other respects remains as before; passed a restless night; pulse 140, soft and regular. From the constantly progressive increase of irritability the prognosis was considered at this date rather unfavorable. Two grains of quinine were directed every four hours, and a nutritious diet ordered. At no time had the movements of the limb been voluntary.

From this period the amendment was slow but uninterrupted; the power of motion returning so slowly that the patient was unable to walk without support before the beginning of March.

At the present date, 16 months from the attack, the leg has recovered its natural size, but there is diminished freedom of motion from partial anchylosis of the hip-joint; the general health is good.

The father of this patient, who had an attack of remittent fever about the same time, suffered during his convalescence from a similar swelling of the left lower extremity, the pain commencing in the gastrocnemius muscle. This yielded in a few days to simple treatment and the recovery was complete.

The symptoms corresponded in both these cases with those of *phlegmasia dolens* of puerperal females, and Dr. Henry is of the opinion that they were genuine examples of that affection.

Dr. Mitchell reported the following case as another example of phlegmasia dolens after fever:

A lady, convalescent from typhus fever, was attacked with acute pain in the calf of the left leg, attended with considerable heat of skin and acceleration of pulse. The part became hot, swollen and hard without change of colour. The *hardness* resembled that of lead, and occupied the whole bulk of the gastrocnemius muscles. There was tenderness in the popliteal space, and in the left iliac region. Partly from the pain caused by motion, and partly from want of power over the muscles the use of the limb was lost. After five days these symptoms began to abate, but lameness continued for several weeks afterwards.

Dr. Trask reported the following:

A. T., æt. 6 months, was healthy for the first two months after birth, after which time it began to lose its appetite and flesh, neither of which it regained. About July 15th it had an attack of vomiting and diarrhœa which yielded to simple remedies. At this time the mother observed a red spot like a pimple just below the right clavicle, and also dark-colored, ecchymozed patches, feeling hard under the finger, on the back between the shoulders, and on the left elbow and a few upon the lower extremities. The appearance of these spots remained unchanged until July 30th, when the diarrhœa returned, accompanied by frequent green discharges and tenesmus, but no vomiting.

Coincident with this relapse, the spot below the clavicle began to increase rapidly in size and by August 1st, it formed a tense, insensible globular swelling of a dark blue color reaching about an inch and a half above and below the clavicle, and encroaching upon the region of the trachea, with an abrasion of the cuticle in the centre of the size of a half dime. The tumors on the back, some eight or ten in number, varied in size from a pea to a nut, were slightly, if at all elevated above the surrounding skin, feeling under the finger like inflamed lymphatic glands. Similar spots, of the same blue colour, and others of a greenish-yellow, were seen on the trunk and extremities. The patient was at that time exceedingly prostrated, with the pulse 160.

The swelling upon the neck appearing to be gangrenous, a yeast poultice was ordered; also hydrarg. c. creta and pulv. dov., cum sesqui carb. ammon.

Aug. 2. The tumor was discharging pretty freely a sanious offensive fluid from the opening in the apex. The discharge continued offensive until death, which took place next day; the whole tumor had become much softened and would probably have entirely sloughed off had the patient survived sufficiently long.

"The spots of purpura," says Wilson, "are usually seated in the superficial layer of the dermis, more rarely the extravasation takes place beneath the epidermis, and in *some cases* ecchymoses are found in the *subcutaneous cellular tissue*." No post mortem examination could be obtained; but it is evident that from the age of two months, some source of irritation existed, probably intestinal, by which the system was debilitated, and that the morbid state of the capillary system thus induced, was made manifest by the extravasation of blood into the subcutaneous cellular tissue.

Dr. McMellen reported a case of hæmatocele, occurring in a U. S. soldier several years since, which yielded very happily to treatment.

Dr. Morse reported a case of *placenta prævia*.

Dr. Betts read a communication upon the employment of blisters in erysipelas. When applied to the margin of the inflamed surface the further extension of the disease is prevented, and when applied to the inflamed surface itself, he has in every case found the cure very speedy. In one instance, as an experiment, he applied strips of blistering plaster around a limb with intervening spaces uncovered; the blistered portions were cured, and the unblistered surface being subsequently vesicated, yielded with equal promptness. Dr. Betts has observed two circumstances connected with blisters in erysipelas; 1st. There is little or no pain. 2d. The surface heals with rapidity.

Regular Meeting, February.

Dr. Trask exhibited the stomach of a man who committed suicide by taking arsenic. About one o'clock in the morning of January 25th 1846, Dr. Morse was called to J. I., whom he found in the following condition: the extremities cold, the face livid, eyes turned upward with lids half closed, jaws firmly locked, respiration becoming rapidly feeble. He had a few moments before confessed that he had taken poison.

Autopsy 57 hours after death. The whole muscular system in a state of great rigidity, the parietes of the abdomen tense and unyielding as a board. Expression of countenance placid, omentum healthy, no appearance of inflammation of peritoneal surface of the stomach, veins about the greater curvature fully distended, stomach contained three pints of water mixed with gray, stringy mucus. Its villous coat was generally injected and considerably corrugated, and in many places very much softened. There were three or four irregular bands nearly parallel, $\frac{3}{4}$ inch in width running in the course of the curvature of the stomach looking like wheals, caused by a very considerable thickening of the mucous coat, and of a bright red color. Numerous spots of a brownish-black were sprinkled over the surface, consisting probably of altered blood effused into the texture of the villous coat. The *duodenum* was much softened in its whole length and could be easily perforated by the finger, its mucous coat much thickened and could be pealed off by the finger nail. Mucous membrane throughout the intestinal track much corrugated, pretty generally softened and in many places sensibly thickened. An abundance of beautifully-arborescent vessels were observed, more especially in the ileum. The cœcum presented a very dark livid appearance from effusion of blood beneath the mucous coat, an appearance that may have been caused by the intemperate habits of the subject. Heart, lungs, and liver apparently healthy.

The deceased was a Scotchman, æt. 30 years, by profession a stuffer of natural history specimens, and had a paper of arsenic in the house. Some time between one and three, P. M., on the day after a debauch, he sent for a pint of beer and drank it. Almost immediately afterward vomiting commenced and continued with intervals of ease, until his death, which occurred at one o'clock, A. M., not over 12 hours from the taking the poison. During this interval he was constantly swallowing large draughts of water which was soon thrown up. Notwithstanding the stomach had been thus washed out, the fluid obtained from it afforded most abundant evidence of the presence of arsenic. None of the white grains were discoverable in the stomach, but at the end of a week, the duodenum was found colored with the yellow sesqui-sulphuret of that metal. The amount taken is unknown. The case is interesting from the extent of the lesions produced by the action of the irritant.

Dr. Swift reported a case of *fistula in ano.*

Dr. Swift also gave an account of a hydatid testis with hydrocele which had been under his observation.

Dr. McMellen reported a case of vicarious menstruation, the discharge taking place from the rectum.

Regular Meeting, March 7th, 1846.

Dr. Morse reported two cases of puerperal fever of which the following is an abstract:

Case 1.—October 31st. Mrs. M. was confined under the care of a midwife, after a protracted labor of her third child. She rose from her bed soon after the removal of the placenta, scrubbed the floor, walked some distance into an open lot and returned to bed. She was almost immediately afterward seized with chills alternating with flushes of heat, which increased in severity until seen by Dr. Morse, about twenty-four hours after delivery. She lay upon the back with the lower extremities flexed upon the body, tossing from side to side, impatient of all covering, incoherent, having a wild and irrational expression of the eyes, delirious, yet capable of returning answers to direct questions. She complained of excruciating pain in the head, back and hypogastrium. The abdomen was somewhat enlarged and tender upon pressure; there had been no uterine discharge since confinement. The skin was hot and moist, the tongue slightly coated with a white fur in the centre with red edges and apex; there was occasional nausea, loss of appetite, an almost unremitting hiccough, bowels costive, and suppression of urine. The pulse was 148, full and hard, respiration hurried. She manifested great aversion to her child; the breasts were tolerably filled with milk.

Desiring to learn if any injury had been done by malpractice, he passed his hand into the vagina, and found the os uteri firmly contracted and so exquisitely sensitive that she was thrown into a momentary convulsion by an attempt to circumscribe it with the finger. She was bled to approaching syncope and ordered a cathartic of cal. and jalap, hot salt to the abdomen, and warm diluents.

November 1.—9 o'clock A. M., (11 hours afterward), much better, has been purged freely, pulse 130, soft and compressible, skin moist, less tenderness on pressure, urine free, breasts well filled, child nurses, but she takes little notice of it, complains of weakness and want of sleep. Blood drawn presented marked appearance of inflammation. Ordered suppository of opium, hot salt to be continued.

7 P. M. every thing favorable—slept well.

At 11 P. M., the doctor was sent for. There was violent jactitation, loud screamings, sleep broken by hideous apparitions, agonizing pain in head, back and hypogastrium. V. S. to ℥ xxx. from a large orifice, saline cathartics and hot salt from which she had derived great relief.

November 2.—9 A. M. A great change, pulse 110, and all symptoms subdued from the commencement of the operation of the cathartic, ordered a Dover's powder, and the hot application to be continued. Under aperients and occasional anodyne enemata, her convalescence was rapid.

Case 2. Mrs. Mc. was delivered Dec. 19th after a protracted labor in which ergot had been administered. She had been very thirsty for some hours before the child was born.

December 20.—11 A. M. Her thirst insatiable, otherwise comfortable, very slight after-pains, lochia profuse.

10 P. M. Pulse 130, somewhat hard, tongue slightly furred in centre, lochia profuse, bowels had not been moved for five days before labor. —V. S. ℥ xx., and a purge of cal. and jalap.

21st.—9 A.M. No alvine dejection, sharp pains in left lumbar region; abdomen enlarged and somewhat tympanitic and intolerant of pressure; tongue has thick white fur, thirst more urgent, suppression of urine and perspiration; pulse 104. Saline cathartics and anodyne enemata.

8 P. M. Had free vomiting of blackish bile; medicines not operated; abdomen less tender; pulse 100. Has taken also ol. ricin. Blood deeply cupped, but little buffed. Lochiæ continue, contin. cathartics.

22d.—10 A. M. Increased pain in lumbar region and greater abdominal tenderness.

6 P. M. Pulse 106 and very hard, spirits depressed, pain and tenderness increased; frequent vomiting. V. S. ℥ xxx., with much relief. Ordered hirud, xviii., and saline cathartics, hot fomentations of hops.

23d. She was decidedly better; relapse however ensued; the doctor's directions were disregarded, and she died on the 28th from her own perverseness and the mistaken kindness of friends.

Dr. Crane read a paper upon the subject of puerperal fever, detailing numerous cases, from which were drawn the following propositions:

Prop. 1. Erysipelas and puerperal fever are concurrent affections, or prevail at the same time epidemically.

Prop. 2. Puerperal fever frequently receives its origin from an animal poison communicated from persons affected with gangrene, typhus, and chiefly erysipelas.

Prop. 3. Puerperal fever once set up, is again capable of imparting to any person not in the puerperal state, the following, viz.:

1*st.* Inflammation of the peritoneum or other membranes, accompanied by ataxic form, both in the male and female subject.

2*d.* Erysipelas; local, as in the hand or arm, from post-mortem inspections; or general, as in the face or person.

3*d.* Typhus fever with its various accompaniments, and in a variety of forms.

Prop. 4. Erysipelas and puerperal fever frequently co-exist in tho same person at the same time.

Prop. 5. These affections are produced and reproduced by direct inoculation with fluid of the living and the dead; by effluvia arising from bodies of the sick, or carried about by the person of the physician or nurses; by clothes or bedding, (fomites) which have been in contact with a diseased individual.

Dr. Morse reported the following:

He was called to a woman about four months pregnant, and found her suffering from intensely severe pains, which in every respect simulated those of parturition. Before these could be relieved, he administered several grs. of morphine. Within six days the fœtus was expelled dead.

Dr. Crane inquired if the death of the fœtus had not probably been caused by the large amount of morphine which the patient had taken; instancing a case occurring in the practice of a friend of his, in which the occurrence of abortion was attributed to the employment of opium pills. Dr. C. was inclined to think that Dr. M's. case was one of rheumatism of the uterus. Neither of the other gentlemen present had ever seen any similar influence of opium on the fœtus, and the practice pursued by Dr. Morse was approved by all.

Regular Meeting, May, 1846.

Dr. Betts read a paper upon venesection in the cold stage of intermittents. Dr. B. resides in the eastern section of Brooklyn, which, with the neighboring country, is prolific in intermittent. His practice has uniformly been to resort to venesection in the cold stage, and with most gratifying success. From experience he has found the best course to be the following: first, to prescribe a mercurial alterative, followed by a mild cathartic, thoroughly removing morbid secretions of the stomach and bowels, and in some cases an emetic also; afterward, to bleed during the first part of the cold stage, until the chill is nearly or quite broken. Dr. Mackintosh preferred bleeding from a large orifice. Dr. Betts prefers a small orifice; since though an impression is made upon the system sooner by the former practice, Dr. B. conceives that the curative effects are not so satisfactory as when the blood is drawn slowly. Dr. B. follows up venesection by quinine and Jamaica ginger or black pepper.

Dr. Crane read the following case of abscess of the cervix uteri:

Mary Graham applied for relief at the Northern Dispensary, July 26th, 1844. Complains of leucorrhœa and of the usual symptoms which accompany it. Was delivered five years since by instruments of a still born child, since which time she has been in bad health. Complains of constant pain in the back and bottom of the belly, which is only relieved by taking the recumbent posture. The catamenia appear regularly every month, but are very scanty, after which she is troubled with distressing cephalalgia for three or four days. The menstrual discharge is not continual, but appears at intervals. Soils but a single napkin, and the actual discharge continues but a few hours.

By the touch the cervix uteri is found to be irregular and nodulated. On its posterior wall, a distinct circumscribed hardness of the size of a small bullet is recognized. By the rectal touch, the body of the uterus is found to be enlarged, and anteriorly towards the left side induration and fulness are also felt.

By the speculum the cervix is seen to be irregular and knobbed as to form, and to fill completely the mouth of the instrument, (Madame Boivin's). The mucous membrane covering it is smooth, shining, and of a pale rose color, excepting a nodule on the edge of the os, which was of a bluish color. No traces of the lips forming the os can be found. The os is a mere circular pin-hole, scarcely admitting the blunt end of a probe, and through it is oozing a dark-viscid bloody drop of fluid. The whole os seems to be obliterated, with the exception of this minute central aperture ; and the cicatrix formed by the union of its edges is evident by a bluish line which is seen to extend from the edge of the foramen. Introduced metallic flexible bougie, No. 1, with difficulty.

August 4. Immediately upon introducing the speculum, pus of an exceedingly fetid character and mixed with blood, is discovered issuing from the os uteri. Upon pressing the instrument against the cervix, it escapes in large quantities, (one ounce at least). It is increased by coughing, and the withdrawal of the bougie is followed by a gush of matter. The cervix is now quite flabby. Its anterior wall is pale, and smaller than the posterior, which is more livid. By touch the circumscribed hardness of the posterior wall is found to have disappeared. The uterus is not enlarged above the pubis, nor is there any abdominal disease.

August 15. Has had a good deal of pain for a few days in the pelvic region, accompanied with dysury. The menses have not appeared as yet. *Speculum.* The lividity and flaxidity of the cervix continue. Pus of the best kind is seen escaping from the os, which is yet a mere pin-hole, and admits bougie, No. 3. When the bougie has passed to the distance of half an inch, it is strongly grasped, and the cervix can be drawn forward and pushed backward like a flaccid bag by it. The size of the cervix is diminished one half, and does not fill the mouth of the speculum even when in a collapsed state.

August 21. The patient has been menstruating some days without pain, and much more copiously than for five years past. The menstrual fluid mixed with mucus is now passing the os. Introduced bougie, No. 1, 1¼ inch, when it struck against a fleshy base. Bougie, No. 3, passed with some little difficulty the same distance, but is strongly grasped on extraction. No. 5 cannot be introduced. Applied nit. argenti over the cervix and within the os.

August 30. Thick pus is still issuing from the os. Bougies, No. 7, and ultimately No. 10, were readily passed through the cervix, and followed by the introduction of caustic within the neck.

Patient did not return again.

An interesting conversation took place upon the employment of ergot in labor, and several instances were related of the supposed deleterious influence of this medicine upon the fœtus. Dr. Crane stated, that if ergot be given in small and oft-repeated doses, it will increase the intensity of the regular contractions of the uterus without exciting the characteristic pains which ergot produces when given in the ordinary doses.

Dr. MITCHELL read a paper upon vaccination as a prophylactic, and on the propriety of revaccination, for the purpose of arresting epidemics, smallpox, &c. He also showed the superiority of vaccination over inoculation in preventing the extension of this formidable disease.

REGULAR MEETING, September, 1846.

Dr. MITCHELL reported the following case of albuminuria and anasarca, then under treatment:

A lad of fourteen years, complained of shortness of breath, irresistible drowsiness, and general œdema of the cellular tissue. There was dulness on percussion over the precordial region a little greater than natural both in degree and extent. The heart's impulse was weak, but the sounds normal. The urine coagulated both by heat and nitric acid; the proportion in bulk of albumen appearing about three-fourths that of the whole of the urine subjected to experiment. Appetite good and bowels regular.

Seven years previous had pericarditis, all the symptoms of which were relieved at the time, except shortness of breath, on exercising. No symptoms indicating renal derangement are remembered to have existed.

The ordinary course of diuretics after ptyalism, and of hydragogue cathartics, was attended with little benefit except complete relief of the drowsiness.

Hydriodate of potash was given for two months without apparent improvement, but its discontinuance was attended with an aggravation of the disease. Some relief followed its resumption.

Bichloride of mercury was then resorted to in connection with saline purgatives, and with such effect as to excite hopes of permanent good, but after two months' use the improvement ceased to progress, and the old symptoms began to return.

The treatment first instituted was again resorted to, but the young man grew rapidly worse.

The repeated administration of elaterium was followed within a week by the almost complete disappearance of the anasarca, the supervention of extensive superficial *inflammation of the right thigh*, and derangement of the stomach and bowels. These symptoms soon disappeared under appropriate treatment and the discontinuance of the elaterium, but during recovery the œdema returned.

The use of elaterium was resumed as soon as the case permitted, and with precisely similar effects, viz., disappearance of the anasarca, deranged digestion, and *acute and extensive inflammation of the right thigh.*

From these symptoms the patient is again recovering, but the œdema is also increasing. The albumen in the urine has at no time been less than at the first examination. The report of the case will be continued hereafter and the event made known.

Dr. Swift read a long and very complete paper upon the morbid anatomy, causes, symptoms and treatment of Otitis and Otorrhœa.

Regular Meeting, October, 1846.

Dr. Trask read a paper upon the pathology of Phlegmasia Dolens, accompanied by a large number of cases analyzed and presented in a tabular form. The tables Dr. T. considers as establishing the identity of this affection with phlebitis. (This paper has since appeared in the *American Journal of Medical Sciences, January,* 1847.)

Case of Anasarca.—Autopsy.

Dr. J. G. Ladd reported the following case with post mortem: Nicholas May, aged fourteen years. General health during life had been good, with the exception, that at times he was subject to accumulations of serum in different parts of his body, never before amounting to anasarca. A few days before his decease, a slight tumidity and œdema behind the sterno-cleido-mastoid was observed, with a puffiness of the face, but little notice was taken of this apparently unimportant symptom. On the evening of his death, after having retired to rest, his mother observed that "something ailed him," and made him get up and come down stairs, which he readily did without assistance. Shortly after, upon lying down on the bed prepared for him, dyspnœa came on, and in a few minutes *he was dead.*

Autopsy, twelve hours after death. Subject found lying on his back—much extravasation of blood into the most depending parts of the body. Great tumidity and œdema of the face, neck and whole surface of body. *Brain;* upon removing the scalp a considerable flow of blood and serum followed the incision. Strong adhesions of dura mater to the calvarium. Great thickening and opacity of the membrana Arachnoidea, and a serous deposite under it at the base of the brain, with great vascularity of the substance of the organ. *Thorax.* Large quantity of serous effusion into the thoracic cavity. Pleuræ and mediastinum full of liquid. Lungs. *Right lung,* one-fourth natural size, completely solidified from compression—no remains of vesicular structure. *Left lung.* Small portion of upper lobe retaining vesicular structure, but congested. Lower lobe completely solidified. *Heart,* small and flabby. Pericardium distended with serum. *Liver,* very much enlarged, extending downward as far as the umbilicus, over the left side to the spinal column. Substance of right lobe hard and extending up into the thoracic cavity, making compression upon the solidified lung. Gall bladder very much enlarged and distended. *Intestines,* contracted and hard. Serum between the serous and muscular coats of colon. Other organs natural. Bladder slightly distended.

Art. III.—*Remarks on the Use of Galvanism in the Treatment of certain Nervous Diseases,* By H. P. Dewees, M. D., of New-York. (Concluded from page 307, Vol. VIII.)

Much discrimination is required as regards the proper period at which a galvanic current should be used in paralysis, and in being able to appoint this, the causes and the stage of the disorder should be duly weighed. Unfortunately if the disease is announced by an apoplectic seizure, the friends of the patient become anxious and alarmed, the medical attendant being thwarted or biassed in his judgment through these fears. This is strongly verified in those cases happening to strong plethoric men, free from cardiac difficulty, but where the *nervous power has been unduly taxed.* Here, in place of a mildly-stimulant expectant treatment (the loss of blood from the temples or arm being regulated by circumstances to be mentioned shortly) the patient is generally copiously bled and purged. Because he is plethoric and fat, he is bled *profusely*, or "until he comes to," thereby taking away the nutrition of the great nervous centres already below par. The man, to be sure, may recover his senses, but he comes to with what may be called a *life of proportion*, one or both sides being paralyzed; or, he may not be even so lucky, and death is speedily ushered in by a second or several quickly-recurring attacks. As in autopsy, the ventricles are frequently found filled with serum, the medical man says, "it is no wonder he died, he could not resist such pressure on the brain." But does he ask what was, in this case, the cause of this effusion, and whether it did not result from the loss of nervous power, whereby the *tonicity* of the vessels was impaired, the transudation taking place of necessity?

Now, in these cases, take them all together, it would be safer not to draw a drop of blood, than to take such a vast quantity. If, on auscultation, the lungs are found laboring heavily, and the effects of so much imperfectly-arterialized blood are showing themselves by the retention of the highly-carbonized fluid within the brain, the circulation being labored and slow, then it may be necessary to relieve the vessels of a few ounces of blood, in order to start, as it were, the stagnating current, on the principle of opening a drain in the meadow to relieve the whole. At the same time, a moderate stimulant will be called for to renew the exhausted nervous power to support the circulation. Cold moderately applied by the iced water bladder, with dashing or sprinkling of cold water over the face and neck should not be neglected. When the patient returns to consciousness, he will in all probability be free from paralysis, or but slightly affected. The only excuse for large detractions of blood can be found in the knowledge that the exhaustion of nervous power has been great, and its capacity to be speedily renewed is destroyed; then the vessels have to be emptied, to proportion the circulating fluids to the diminished nervous supply.

In cases of sudden rupture of the vessels, when there has been no *previous effort or exhaustion*, the sanguineous effusion being more or less extensive, the seizure may undoubtedly be attributed to the severance of nervous connection and to pressure, the paralysis ensuing as a natural sequence. The causes may be various—viz., softening, ulcerative action, atheromatous alterations, mechanical interference from bony spiculæ or ossific plates, &c.

The early treatment becomes a matter of nice diagnostic discrimination; but one thing is certain, there is nothing to be gained by the immoderately "*prompt* treatment." The clot is forming, or has already formed, when the practitioner is called in, and no violent measures can force it away. The indication becomes to sustain life by relieving the other parts of the machinery, so that their performances shall be as duly maintained as possible. Hence the benefit so frequently obtained from those remedies regulating the pulmonary and hepatic circulation, but which are often misconstrued as having a *specific* action on the brain, when in truth, the effect so produced was secondary. The lungs and liver being enabled to sustain their functions, the brain will not be so greatly oppressed with black blood, whilst its *nutrition* will be properly carried on.

In the early invasion of the attack, the great nervous centres receiving such a shock, the functional activity of almost every vital organ is interfered with—the lungs labor with impeded respiration, the heart contracts sluggishly upon the imperfectly aerated blood, whilst the liver tardily eliminates the bile. Here the highly-venous state of the blood and the elements of the biliary secretion circulating through the brain, serve to depress the nervous forces essential to reparation. Therefore in the treatment of all recent apoplexies and paralyses, much caution is required *in proportioning the loss of blood, if necessary, to the state of the nervous power and its capability of being aroused.*

There are some cases in which the nervous depreciation is so great, and where at the time no speedy renewal can be given, in which the copious detraction of blood is absolutely called for, thereby proportioning the amount of the circulating fluid to the nervous supply for its sustension. But these cases are comparatively rare, and happen, for the most part, in the completely broken down, or where the exhaustion from some known cause cannot be overcome, save by perfect and long-continued rest. These cases may be likened to two horses, each drawing a load of wood ; both fall, but the one is fresh and strong, and a few sticks taken off, and the whip applied, puts him on his feet again—whilst the other is fatigued by over-exertion, and the whole load has to be taken off, and the animal be allowed to regain his strength by rest and nourishment, the whip not being able to rouse him, or if applied, causes him to waste all his power in one ineffectual effort.

Those cases resulting after a too hearty meal, and especially where wine and great hilarity of conversation have been indulged in, are not always to be set down as caused by sudden rupture. The brain in these instances becomes much oppressed by unassimilable blood, and as the nervous power has already been over-taxed in the performance of digestion, and by mental excitement, besides the *local pressure* of an over-distended stomach upon the neighboring ganglia, affording a direct impediment to the functional performances, the vessels become loaded, and pressure results—effusion may or may not occur. If vomiting comes on, the offending meal is cast off, and the patient generally recovers without much disturbance in his power of locomotion. But if the effort of nature be inadequate to the task, and medical aid is not speedily rendered, the brain and medulla oblongata become more and more oppressed, sensation and impressibilty rapidly decline, and effusion, or rupture with laceration of cerebral fibre may now ensue, ushering in the second attack, as it is termed, and generally with fatal issue. If not fatal the clot forms the chief obstacle to return of comparative health, its absorption and isolation regulating the progress.

There is another form of apoplexy in which paralysis invades slowly but surely, and is apparently hopeless of remedy if the attack prove not fatal. It is announced by giddiness, with a sensation as of the aura epileptica, and an *after* consciousness of having, for a second or more, lost memory, the return to self being heralded by a deep sigh or half sob, sometimes accompanied by nausea, and always by pallor at the onset, frequently followed by purple flushing of the face. These cases happen for the most part amongst persons of debilitated habit, and where there have been great emotional causation for a length of time, excesses in venery and the like. In such subjects, the entire organism is depraved, the blood is defibrinated and deprived of its red globules, whilst the nervous power is wasted by perpetual demand. The want of tonicity is witnessed in every tissue, and effusions varying in extent leak, as it were, into the ventricles, the symptoms announcing the quantity, though not always their situation. This form of disease is insidious, as frequently the attacks are slight, and at first scarcely perceptible to the subject himself; the poverty of the circulating fluid increases, the temper becomes more peevish, and the memory gradually fails, or suddenly a complete loss of connection in the idea or sentence takes place. In some paralytic contraction of the flexors of the fingers, arm or leg ensues, accompanied with pain, and many times attributed to a *neuralgic* or *rheumatic* affection, but in reality frequently marking softening or other organic changes of the brain. After a time the disorder becomes more grave, and the patient suddenly falls, or is found in his bed insensible, the face drawn to one side, or the muscles collapsed from double paralysis, the loss of power over the limbs being more or less complete. From this there is hardly a chance of partial restoration, although treatment may delay the final issue.

No matter from what cause it may be dated, the *effect* is the same—viz., the serous or sanguineous transudation to greater or less amount, or rupture of some small vessel or vessels, attended in many instances, with softening of recent or later date. The exhibition of remedies must be made with the view of retarding it. Bleeding from the arm is certain and sudden death—but if the vessels of the face are full and distended, though at the onset it was exceedingly pale, a *little* blood can be taken by cups or leeches with temporary relief. But the heart's condition requires attention, and its power must be rallied by local stimulants, as Granville's lot. fort. or strong aq. ammonia over the cardiac region and down the upper spine; for the state of *spasm* often exists in it as described above. The feet and legs must be stimulated by hot water and cayenne, either by bath at the side of the bed or by moist frictions; but care must be had in not suddenly *lifting the patient upright*, a fresh and fatal attack of convulsion being known to follow the imprudence. Internal stimulus, as brandy, &c., must be carefully administered, paying regard to *the period at which reacti n shall be established, lest the excitation exceed the capability of the vessels to bear, and the nerves to sustain.* If the respiration be imperfect, cold water should be sprinkled on the face and neck in the *order of the natural time required for the act;* as a safe rule, 18 to 24 times a minute. *Small* doses of Dover's powder and quinine can be given to support the strength, the congestive influence of the opium being carefully avoided. When the first effects of the attack have passed, *nourishment* and *not medication* must form the essence of the treatment. In these cases, happening as they generally do in strumous or "white-tissued" individuals, calomel is rarely well borne; it is only necessary to remember this, to proportion its use, for it should be remembered, that though it may cure the disease, it does so often by killing the patient. Hydriodate of potash serves a better purpose, if the absorption of the fluid is the intention; and as there always exists more or less irritability, it should be conjoined with a tonic; the infusion of the wild cherry bark is the best, in my opinion. Minute doses of veratrine, as gr. $\frac{1}{16}$ or $\frac{1}{20}$ conjoined with aloes, rhei and taraxacum, form an excellent stimulant laxative. If necessary, pulv. sanguinariæ, gr. ss to gr. 1, may be given in conjunction. Tonics and tonic stimulant bathing are also beneficial. The surface can now be sponged with a light current of electricity.

The error among many, in considering apoplexy as entirely a disease of the vascular system, has served to perpetuate the most irrational treatments. As relief in some instances has been afforded by prompt bleeding in the commencement of the attack, where the pulmonary and cerebral congestion was great, it has warranted in but too many, those profuse detractions, that ultimately *reproduced* the very state they dreaded. If the diseases and functions of the nervous system were better understood and attended to, and a strict study of the period of the disease entered into, these murderous repetitions would not be so frequent, or if absolutely required, would be in smaller quantities than is practised by what is called "the bold practitioner."

No one of a sudden makes such a quantity of blood that its circulation endangers life, but his nervous system may become so disordered, either primarily or secondarily, that an almost mechanical impediment starts up to the performance of the circulation; and then the blood being delayed on its ascent or descent to the heart, may become a source of reactive danger, only to be subdued by lessening its quantity in order to proportion it to the nervous capability; whilst, at the same time, a stimulant—as brandy, ammonia, &c., will be required, to restore tonicity to the congested and over-distended vessels.

This arrest of the circulation in itself, would not be so dangerous to the individual parts, were it not that the brain becoming oppressed by highly-carbonized blood, and the respiration thereby being more and more impeded, organic changes rapidly develop themselves with the increasing functional embarrassment. And thus it is, that action and reaction move, as it were, in a morbid circle.

According to the original seat of disease and its implicating extent, do the phenomena of *sensibility* and *impressibility* take place. A want of distinction between these terms is a most common error, although from the labors of Hall and others, the contrary might be expected. A man may be perfectly conscious of the prick of a pin, yet be unable to evidence it by movement, voluntary and excito-motion being alike lost; whilst, on the other hand, he may be perfectly insensible to the pain, involuntary motion resulting, the spinal marrow retaining its *impressibility* through the incident excitor nerves, or, by *direct nervous extension from below the point touched.* Were this better understood, much needless cruelty might be spared the patient, and less empirical treatment would be resorted to. There is a very common, and at times, an unintentionally-cruel mode of testing a patient's consciousness—viz., by placing candles near his eyes, his not shutting the lids or following the light, being construed into an evidence of total unconsciousness. Now the being *able to see* and to shut one's lids, are very different. If the disease involves the base of the brain or medulla oblongata, the reflex action of closing the eye, does not reply to the optic nerves acting as excitors through the stimulus of light, voluntary power being at the same time lost. Yet how many, when recovered, will tell you that they were perfectly *conscious* of the trial, and how severe the infliction was! Again, some will shut their eyes and yet be *unconscious*, and others will experience pain, and yet be unconscious that involuntary action closed their lids. Where the sensibility and involuntary motion of a part is lost, a different organ or class of organs may become the channel of excito-voluntary actions. This is witnessed in those curious cases in which the feet or hands have lost their tactile sensibility, and yet the person is able to walk or hold any thing perfectly well, provided he sees when and where to place his feet and move his legs, or the necessity of grasping the object. In the dark, or by turning the head aside he would fall, or let drop the object in the hand. In these instances, the spinal system is not warned to the necessary movement, by the incident excitors of the feet and hands, but through the retinal expansion of the optic nerves, the will being so called into action. I have seen four cases of this curious disorder. The patients could not tell where their feet or legs were when hid by the table; in turning in bed, the eyes had always to be used to see where to place the limbs; if the room was dark, turning could be effected, but there was no knowledge where the limbs were. I have seen them fall to the ground by placing the hand before the eyes or by the light being suddenly obscured, the muscles of the limbs and trunk instantly ceasing to sustain the necessary contraction. Co-ordination or regulation of movement was completely lost, unless the eye was placed upon the object. In these cases, regard should always be paid to the medulla oblongata and cerebellum, and the treatment must be made accordingly.

I cannot in this paper treat of apoplexy and paralysis from kidney disease, but will merely throw out the hint that this frequently is masked to an inattentive observer by apparent disease of the heart, and the treatment is directed solely to it. Where there is reason to infer that the elimination of urea is retarded from its depressing influence on the brain and general nervous system, I can only caution against the frequent detractions of blood, as fatal consequences are apt to follow. When these losses have been made, a double drain is opened, the blood-letting directly weakening the nutritive functions and the nervous power, already oppressed by the retention of urea.

Above I have incidentally remarked upon the delay of blood on its ascent or descent to the heart forming types of certain apoplexies or paralyses. This portion of the subject has not to my knowledge been remarked upon. The organic changes in the heart itself—such as valvular disease producing contraction with imperfect closure, &c.,—are not here alluded to as cause or effect, their mechanical influence in disturbing the circulation and inducing the apoplectic condition being generally understood, and also requiring greater consideration than can be allotted here. I shall therefore pass over these states, or but casually allude to them, my present object being to call attention to those forms of the disease resulting primarily in *nervous* derangements, but mostly termed vascular.

The venous blood which is returned by the ascending and descending cavæ, enters the right auricle during its diastole, whilst the corresponding ventricle is contracting upon and expelling its contents into the pulmonary artery through the sigmoid valves. This blood, after having circulated freely through the lungs, is returned by the pulmonary veins to the left auricle as oxygenized blood, whence it passes into the left ventricle to be propelled into the aorta to supply the system. From the junction of the venæ innominatæ arises the descending cava, its length being about three inches, and emptying into the right auricle. Into the venæ innominatæ or the cava descendens itself are discharged the blood of the inf. thyroidal, vertebral, sup. intercostal, internal, mammary, vena azygos and other venous trunks. From the junction of the primitive iliac veins arises the inferior cava, which also empties into the right auricle, having first received the blood of the middle, sacral, lumbar, spermatic, emulgent, capsular, hepatic and phrenic veins. Between the upper and lower cava the vena azygos forms a great anastomatic connection.

Such being the anatomical arrangements, we will at once enter into the cerebral disorder occasioned by *nervous* debility, or paralysis of the arterial and capillary vessels, supplying this return blood to the upper and lower cavæ. In either, the effect on the vessels is the same, viz.: loss of contractility, with abnormal distention. The result is, diminished circulatory impetus in the arterial and capillary vessels of the part affected. If the arterial nervous degeneration alone ensues, the capillaries remaining intact, the circulation becomes languid and the latter vessels do not fill so rapidly, nor are they supplied with as richly oxygenated blood, the venous state beginning early to exhibit itself. If in conjunction the capillaries suffer the same loss of nervous supply, the blood is yet longer delayed and congestions ensue, the venous trunks tardily emptying into their respective cavæ. The consequence of which is that the right heart, in a given time, receives a diminished supply, and that too of blood in a highly venous state, owing to the remora within the capillaries. This blood having entered the lungs for revivification, not only requires more oxygen, but forces upon the lung greater *inspiratory* effort to supply the demand, whilst at the same time, the nervous distribution to the bronchial membrane becomes less sensitive, the moto-contractile fibrils of the bronchi becoming impaired by want of their due stimulus. The inspirations then exceed in force and rapidity the expirations, and the foundation of an emphysematous condition of the lung is thus established. Many asthmatic cases can be referred to this cause, and the treatment found successful, substantiates the views here taken.

In the meantime, although the right sides of the heart are impeded in their performance, the left are duly stimulated by oxygenized blood (unless pulmonic obstructions exist to some extent) and the ventricular impulse is not diminished, the blood being propelled vigorously onward, till it reaches the part in an abnormal condition, when retardation again ensues. If the infarction within the capillaries become great, *regurgitation* inducing valvular disease according to the duration, ensues, the blood recoiling as it were against the wall of the congested vessels. It is here that the heart may be said to complain more for other organs than for itself, the organic changes in its walls being *results* and not causes of the distal morbid action. The *sounds* from a heart so diseased are but too apt to be mistaken for the disease itself, by viewing the subject in this light, many cardiac derangements become less hopeless of successful restoration, the treatment being directed to the exciting causes.

According to the seat of the disorder the brain suffers. If the congestion be visceral or in the lower circulation, the right heart receives its supply of blood tardily, varying according to the extent of the congestion, whilst a greater demand is made upon the venous return from the head than is normal, by the comparatively empty auricles, in order to supply the lungs with blood to be aerated; the consequence of which withdrawal is a want of due pressure on the brain, or an over-proportioned arterial supply to balance the loss, attended with excitement and sensation of rigid throbbing in the arteries. The face indicates this state by its red flush, without the purplish dusky suffusion of venous apoplexy. If unattended by arterial excess, the countenance will be paler than natural, or half blanched, and free from bloated expression.

The treatment is easily made out by reference to the conditions mentioned. Bleeding from the arm would only tend to distress the brain still more—but cautious local detraction from over the visceral seat, conjoined with outward stimulation is called for in order to fill the venous trunks emptying into the ascending cavæ, by which the right side of the heart may be better filled. When this is established, the head symptoms gradually yield. By directing the remedial efforts against the visceral congestion, the recovery of the patient takes even step with the success attending them, and after a time the heart regains itself, the regurgitation and other difficulties subsiding in proportion to its original implication and extent, the constitutional vigor and habits of the patient. In one case coming under my notice, in which the patient was previously paraplegic, attended with great visceral torpor, the face was flushed with arterial color, although some forty ounces of blood had been taken and was still flowing, till stopped by my advice. The flushed face formed the indication to his advisers. He died in a short time under an attack of violent convulsion and thrashing of one arm against the couch and side of his body, the face being scarlet to the time of his death.

On the other hand, if from similar nervous causes, the upper circulation or that within the cranium be at fault in the beginning of the attack, the right heart does not feel so greatly the retarded supply from the brain, whilst the lungs are supplied with blood by the ascending cava in freer quantity and less carbonized to be aerated for the aortic distribution. The lungs do not labor so terribly, but the countenance has the peculiar appearance of stupor, with the dark purple suffusion of the integuments and corrugated brow. Here the brain suffers, being placed, as it were, between the hammer of the arterial jet and the anvil of the engaged capillaries and venous trunks. The duration of this stage is not long, and unless prevented by immediate treatment, the reverse condition ensues—viz.: over-distention of the right side of the heart from *cardiac paralysis*, the venous engorgement of the jugular and facial vessels becoming greater and greater, whilst the lungs now become oppressed. If allowed to go on, hemorrhage within the cranium most frequently ensues, or if the blood is low in fibrin, serous effusion or sanguineous exudation takes place, ushering in extreme paralysis more or less complete. Cold applied to the head will not alone answer, nor any temporizing plan—blood must be taken from the arm, or from the temple, or, as in asphyxia, from the jugular itself—at the same time stimulant applications must be made to the nape of the neck, and over the cardiac region. If the patient be rich in fibrinous blood, *blisters* are doubtful remedies, and milder and more manageable irritants must be used—but when the blood is low in fibrin blisters are powerful adjuvants. A sudden and profuse loss of blood from the nose has been known to relieve decidedly the oppressed brain, and such natural fluxes are to be regarded in most instances as highly favorable.

The organic alterations of the heart can only be discovered by careful investigation of the physical signs; without this the pulse cannot be as well comprehended. In connection, the general appearance of the patient, the sex, relation of age to the disease and the number of attacks, should be attentively noted, as the pulse, even where there is no organic change of the heart existing, becomes deceptive on account of the arterial alterations or conditions, as respects elasticity, thickness, &c. The same morbid causative actions may exist in two individuals, but the pulse is not alike representative—since in one, the artery may be large and easily dilatable, giving fulness but softness to the jet; whilst in another, the artery may be tense and of small area, the pulse being hard and small. In the aged the arterial rigidity, or partial ossifications must also be taken into consideration, as no truthful index can be obtained from the wrist, the carotids and the heart alone being worthy of serving as guides. In plethoric individuals the pulse becomes disguised in many instances, by over-distention of the right side of the heart, and it is only to be unmasked by familiarity with cardiac sounds, and the objective signs of swollen and at times pulsating jugulars, and the blood-bloated condition of the facial integuments. Here the lancet becomes the chief remedy, and the vein should be freely opened, (it can be performed at least expense of blood by carefully opening the jugular), the pulse rising whilst the respiration becomes freer. In all detractions *pleno rivo* there is a caution to be exercised, in not too *suddenly* emptying the vessels at once, lest the contraction of the capillaries fails to ensue—this can be readily managed by the finger.

Pulmonic obstructions as existing in latent pneumonia, severe bronchitis, compression of the lung by pleuritic effusion, &c., are the frequent cause of this right cardiac distention. If any of these affections exist, sufficiently extensive to retard the aeration of the blood, the return through the pulmonary veins does not take place as rapidly as demanded, and the left ventricle not being fully filled, does not contract as forcibly as when supplied with blood of proper quality and quantity; the jet to the finger, consequently is soft and tells no tale of the danger. The treatment is mechanical, and consists in *proportioning the quantity of blood to the capacity of the lung to aerate.* No stimulation of the nervous power to the state of the oppressed vessels will here avail; a mechanical organic impediment exists, and the lancet can only relieve the effects, the expediency of after-stimulation depending on the subsequent symptoms.

On the other hand, the reverse of this may happen, viz., the heart may become primarily diseased in such a manner that the lungs, from the irritation of delayed blood, etc., shall take on various pathological states, and it becomes a matter of nice discrimination when called into a case of "heart and lung disease," to say which was the original and which the consequent disorder. According to my observation in more than one half of the cases of hemiplegia or paraplegia, ushered in by apoplexy, ensuing in subjects about the middle term of life, or in advanced age, disease or imperfect action of the heart has existed either as cause or effect; whilst in children the cardiac disorder has not been generally so well pronounced, although in some instances decidedly so.

It has become the subject of common remark, that paralytic and other nervous affections seem greatly on the increase during the last ten or twelve years, and the question of the cause is often put to the medical man for solution. Owing to the singular excitements eventuating during the "insane period" of '36—'37, and the overwhelming reaction, the germ has been laid in many for diseased exhibitions of the brain and general nervous system. A ready rationale for the production of neurotic disturbances can be found in the fact that the mental functions were unduly stimulated by visionary successes, whilst the body was abandoned to the attendant excesses—the bubble bursting, the reactive prostration hurled men from Crœsus' seat to the very gates of ruin and despair, and in many became the date of their disease. However, it will not account for the disorders in others, not subjected to such causes, and a more sweeping conclusion, perhaps, can be drawn, in saying it is owing to certain atmospherical conditions, or prevalences, together with luxurious indulgences and want of proper exercise. It must be owing to these meteorological changes, that Rush and others found their sanguinary treatment less dangerous—to say the least of it—than can now be followed. One of our most distinguished teachers has told me that thirty years ago, taking the average of cases, he could safely and with benefit bleed a patient, that under the same disease now he could not detract ten ounces from, without detriment, and long continued debility following. We see this exemplified in certain epidemics.

Whenever the brain has been taxed beyond its natural performances, it must of necessity be done at the expense of its organic force. The result is not only in expenditure of power, *but irritability* attended with *real debility* is established, masked by *apparent* inflammatory action, and but too frequently so treated. Whilst in these cases the chief element of cure consists in rest, conjoined with moderate tonic regimen, avoiding at the onset the use of those stimulants that would cause disturbing action over parts already overtaxed. The local loss of blood may be necessary, according to the quantity in the vessels and the degree of oppression occasioned by it. When the tumult has subsided, mildly stimulant treatment can be beneficially entered into, but not till then.

The pathological result in many such cases is "softening" of the brain, accompanied by paralysis of the extensors and paralytic contraction of the flexors. Psychological changes of lesser to greater extent are apt to ensue, where paralysis attends partial recovery, as evidenced by partial loss of memory, misnaming articles in common use, and sometimes by the imperfect retention of the language most employed, and as I have known in one or two cases, the return of one nearly forgotten and unspoken for many years. The most singular instance of mental peculiarity I have ever met, was in a gentleman who could not write a word if he pronounced it himself, but could do so if it was given him by another.

The diagnosis of the commencement of these cases is fraught with difficulty to the physician and with danger to the patient, as *hepatic* and *gastric* symptoms are most prominent, the cerebral disturbance being often completely masked by the sympathetic participation. The common acceptance of such a case is "a bilious attack," or if symptoms of irritation attended by heat of surface, pain in the back and limbs and partial aberration, be present, "a bilious fever." The reality differs widely; as the brain or spine is seriously affected, and the source of enteric engagement by nervous extension is clearly pointed out. Such cases as above observed are to be found in those who have in various ways and from different necessities over-exerted themselves both bodily and mentally, or in children or youths of strumous habits and excitable temperaments, but whose brains have been unduly exercised.

The reverse of this also happens, and the constitutional degeneracy need not be great, as the liver, stomach and intestines may be seriously diseased, the brain averting notice of the latent disorder, by delirium, carpal or pedal spasm, or by alternate rigid extension and flexion of the extremities. Frequent gagging, or vomiting of bile in great quantities, or of mucus mingled with it, generally announce the *cerebral* disorder. When the stomach and liver are the seat, there is little or no vomiting, but there is greater pain on local pressure, unless the *cerebral symptoms run high*, when the gastritis and intestinal ulceration may have proceeded to fatal extent, yet be unaccompanied by pain. And what renders the foregoing symptoms more obscure is, that *there may be constipation*, or very slight diarrhœa, and this for the most part is attributed to the remedies. Ulcerations of the colon and other visceral portions to fatal extent, and unannounced by any symptom, have been reported in such cases, the affection of the brain averting all suspicion.

In these latter cases we have lesion of the scientific branches of the sympathetic, the presence of irritative contents in the intestine not being noticed, by which the propulsive efforts should be aroused, suppuration ensuing. We see this exemplified where suppuration of the cornea takes place from lesion or destruction of the ophthalmic branches of the fifth pair, the protective mucus not being secreted. The ulceration of an intestine may thus progress to fatal issue, unattended by pain, and in consequence of the loss of sensory endowment in the sympathetic. The absence of pain on pressure, therefore, must not always be set down as evidence of freedom from gastro-enteric disease, as the parts may be in a state of anesthesia. The treatment of these cases is of vast importance. When the *brain* is the seat, but the liver and stomach by bilious vomiting disguise the latent disorder, and large and frequently repeated doses of calomel and drastic cholitics have been administered, it is easy to understand, that the innervation of these organs being in a state of high irritability, they must necessarily be more acted upon by such remedies having a specific stimulant effect on them, and thereby from *irritation* pass rapidly into destructive inflammation, and thus react on the brain. Hence it is that paralysis so frequently follows the injudicious employment of calomel and other mercurial preparations, but which are mostly dated from a *bilious* attack. The treatment should consist in leeching the spinal column and base of cranium; Dover's powder in repeated doses, to subdue the nervous irritability, conjoined with small portions of nitrate of potash, if the skin be dry or husky—and two narrow straps of blister-plaster on *each side* of the gastro-spinal region, after the topical detraction of blood.

Where the disorder is primarily enteric, the calomel forms the sheet anchor of the treatment, the cerebral disturbances quickly yielding, after copious dejections, thereby freeing the blood of biliary impurities, by stimulating the liver, and at the same time subduing the portal congestion.

A few cursory remarks on constipation and diarrhœa, from nervous causes, will not be inapplicable here. I have already referred to the suppuration of the cornea from division of the fifth pair. The mucous membrane of the intestinal canal receives sensific and motor endowment from the sympathetic. The secretions vary according to the state of the sensific and organic branches, the mucous sheathing, the villi becoming increased, diminished or checked according to their condition. The muscular tunic is warned to contraction by the impressions on the sensific expansion—or at times by direct irritation of the cœliac-semilunar ganglia, &c.—and the contents of the canal are then evacuated. The discharge of mucus, as regards quantity and quality, depends on the state of the nervous power. In low conditions the mucus secreted is thick, or becomes inspissated by collection, and the impression on the sensific branches is mechanically lessened, the bowels remaining quiescent; but if the secretion of mucus be *natural*, and the ingesta be acrid and irritant, diarrhœa results. If this continue long, true hypertrophy results from the continued exercise of the function, exhibited in constant expulsive efforts. On the other hand, if the secretion be exhausted and the mucous membrane unprotected, as in inflammation, the tube contracts spasmodically on itself, as is often witnessed on autopsy, the intestinal coat appearing raw and chapped.

The same takes place in the bladder, when the mucous membrane becomes diseased: the muscular coat being hypertrophied, is constantly contracting and expelling small quantities of irritative urine, although at first from disease or injury of the spinal marrow, the catheter was necessary for its withdrawal.

From these hints the treatment can be readily discerned. In those diseases—and especially happening in those termed of "nervous temperament"—where the retained secretions became highly irritant to the mucous surface, and *constipation ensues*, the evacuation cannot be forced by drastic or stimulant cathartics, as their exhibition would only tend, by their retention, to cause greater and more extended contraction of the intestine, and an increased non-elimination of the protective mucus. Demulcents, sedatives, and at times the local detraction of blood, or even from the arm, form the proper remedies, thereby subduing the over-excited nervous irritability, and allowing the mucous membrane to recover its secretion.

In other cases a double state exists, viz., purging from the lower and large intestines, with spasmodic contraction of the small intestines. The discharges are generally attended with dysenteric mucus, highly offensive, and without relief to the symptoms. This condition may be idiopathic, or result from the administration of remedies containing aloes, colocynth, and others, which have, by their absorption, a specific tendency to the lower bowels. The patient complains of the insufficiency of these stools, and places the hands over the middle abdominal region, saying he feels as if a *cord were bound around him.* Opiate injections, in some mucilaginous vehicle, form the treatment, the irritated condition of the colon being soothed by them, whilst the constriction of the small intestines is resolved. Where large and repeated doses have been given, it sometimes becomes necessary to give opium by the mouth, for the double purpose of *calming the spasm*, and *preventing hypercatharsis* from the small intestines.

Another condition presents itself—and I have seen it most frequently in children—where overdosing has been habitual, or where the nervous impressibility has become sluggish from general disease or spinal injury. In these cases, the whole intestinal tract is in a lax condition, the mucous membrane, for the most part, being thickly sheathed with inspissated mucus, consequent on the severe nervous depression, thereby further preventing the action of remedies. Nervo-stimulants, conjoined with astringents, are here indicated; and the practitioner, by referring to such cases, must remember to have seen where brandy, wine and bark have been administered with a view of supporting the patient's strength, that the evacuation of the bowels frequently resulted. Some years ago I was induced to employ small doses of strychnia, or nux vomica, in these cases, and with the happiest result. The physiological action of this alkaloid over the spinal and ganglionic system is now well established, and need not be cited, its astringency being also called for.

From these instances this law can be established, viz., that where the nervous exhaustion or interruption is great, the mucous membranes throw out a thick, tenacious secretion, and that when the nervous power is unduly excited, or stimulated, that the secretions become more freely poured out, which, if long continued, or the part be specifically acted upon by remedies causing increased local action, may, from simple irritation, pass rapidly into inflammation, the total suppression of the protective mucus ensuing. It will not now be difficult to understand, how it is that, where the liver becomes irritated, it may be goaded into inflammation, by the exhibition of mercury, or other stimulant specifics. Whether these conditions exist in the lungs, or the abdominal viscera, the effect is the same, and the inflammation must be relatively treated. And hence it is we find that, in some inflammatory affections, the antiphlogistic and sedative treatment is only successful, whilst in others, happening in those of depressed nervous power and exhausted circulation, the stimulo-tonic plan is indicated; and these latter classes form the most difficult to subdue, as real debility is conjoined to the local inflammatory disorganization. By reflecting upon this, more professional charity would be bestowed daily, when a case not fully reported, but too frequently meets the sweeping condemnation of the practice pursued, the sthenic or asthenic condition of the patient not being known or inquired into.

Before closing this paper, I will drop a few hints respecting sympathetic engagements of the bladder and uterus, resulting from latent *rectal irritation, or injury of the lumbo-sacral spine.* These form most troublesome affections, and are often sources of injury to one practitioner, for the benefit of another, whose diagnosis may perhaps result from greater knowledge, or from previously learning the plan employed by his unsuccessful predecessor, thereby directing his mind to other and more efficient views.

Vesical and uterine affections may owe their date from causes irritating the lower lumbar or first sacral nerves;—these causes may be congestion, inflammation, direct engagement, or injury, &c.—the channel of nervous connection being sufficient to arouse morbid exhibitions in the organs, thus aiding in the masquerade of disordered action from distal origin. Hence the treatment in such cases is a matter of moment. The *local* application or direction of remedial measures, whilst they may serve to soothe the engaged organs, yet fail to cure. As an example of this can be taken the *incontinentia urinæ* of children, resulting from ascarides or worms, and but too frequently unnoticed, their expulsion being requisite for cure. I will here call attention to a certain troublesome "sore nose" in children, resisting all local treatment, but which can be easily subdued by cold mucilaginous injections, in small quantities, and repeated several times a day. Here is illustrated the irritation of a mucous membrane from distal causation.

Intestinal, uterine or vesical paralysis, frequently ensue from concussion or other spinal injury, giving rise to some of the most indomitable forms of functional disorder. The most remarkable and severe case coming under my notice, resulted from a sudden fall across the arm of a rocking chair. The concussion on the spine was so great, that insensibility, with trismus ensued instanter, followed by violent muscular spasms and convulsions resembling those in hydrophobia. The result of this accident was paralysis of the bowels, bladder and lower extremities, with *tetanic spasms*. She was perfectly restored under the treatment employed, consisting in the free use of internal and external stimulants, and the application of the *continued galvanic current*. The vesical inertia was overcome, by passing a galvanic stream from the rectum and spine to the supra pubic region, and through the urethra by a silver catheter, the positive pole being placed upon the spine.

I was led to employ galvanism in vesical paralysis, from the result of some of my experiments on animals with the current. By passing a strong stream, (interrupting it at pleasure), through the lower lumbar and sacral nerves of the animals, (dogs), I have caused the bladder so to contract, that on post-mortem examination it seemed more like a hypertrophied uterus. In these instances the urine was jetted with force, or oozed steadily out.

In some of the Journals I had seen it proposed to employ galvanism as an antidotal means to the effects of strychnine. According to my knowledge and experience in the action of both the antidote and poison, I considered the proposition dangerous, not only on account of the apparent similarity of convulsive action produced by each, but chiefly on account of the rapid *absorption* that might ensue by the galvanic influence. I subjected it to proof, by obtaining a cat, and placing five grains of strychnia within the mouth. Sneezing was the only effect produced for nearly an hour. I then secured the animal, and having placed a metallic tube in the rectum, in connection with the battery, I touched the tongue with the other pole. Instantly the peculiar spasmodic actions of the strychnine resulted, and continued with great violence till death ensued, in about two minutes.

By carefully reflecting upon these results, the rational application and *modus operandi* of those remedies, having control over certain vesical and uterine affections resulting from some known cause, can be readily made out; and hence it is by the employment of a remedy of known physiological action, as is to be found in a galvanic current of proper intensity and quantity, that the specific influence of many articles in materia medica can be discovered, and I need not say, by so doing, many changes will be forced upon the mind for recognition. In other words, by selecting those cases cured by the administration of certain remedy or remedies, and finding the like cases cured by the application of a galvanic current, the curative action of the medicines can be learned, and the remedy, styled sedative, will be found stimulant, and the counter-irritant become a nervo stimulant. I do not propose galvanism to the exclusion, or even as superior to other means, but I hold it preferable not to punish by internal drugging, a man's stomach for his bodily infirmities, if an outward application of a current will answer the same purpose. Galvanism is no panacea, but has been and will be found a most valuable remedy in certain cases.

In conclusion, I will concisely state, that in the employment of galvanism in the various forms of paralysis, the diagnosis between "organic" and "muscular" paralysis must be well established, in order to obtain satisfactory results. In the former, the positive current must be passed from the extremity *to* the spine; in the latter, from the spine to the extremities. In all cases a mild current is to be preferred at first, and its continuance must be subjected to the capacity of the patient at the time, and the susceptibility of the part affected. I should advise in chronic cases the *long continuance* of *a feeble stream*, say from one to six hours; in preference to the more powerful action of an increased current for a shorter period. In passing it through the head, great care must be exercised, and a *light power should be used, and only for a short time*, constantly withdrawing one of the sponges from the surface. By means of the galvanic current I have been enabled to form a surer diagnosis as regards the loss of power, &c., being owing to organic difficulty, or functional disturbance. I have shown this particularly in those cases where the tongue has been affected, the words being completely or almost inarticulate. In some, after a minute's application, the power to pronounce the word distinctly for a time has returned, and by daily administration has been permanently improved. It will be found particularly serviceable also where deglutition and laryngeal expectoration and the power to free the mouth of the saliva are deficient. 513 Broadway.

Art. IV.—*Case of Double Hare-lip.*—By N. S. Davis, M. D., of Binghamton, N. Y.

April 20, 1847. Mr. Y. came to my office with his son, æt. seven years, robust and healthy, but with an aggravated deformity of the face arising from a congenital hare-lip. The fissure was double, extending, not only through the lip on either side, but also through the entire maxillary bone and palate, converting the mouth and nostrils through their whole extent, into one cavity.—That portion of the alveolar process containing the four front teeth projected forward nearly one inch beyond the lateral pieces of the jaw, and contained two large incisor teeth. The lateral or side pieces of the jaw had so far approximated each other as to come in actual contact behind and beneath the projecting middle piece. The projecting portion had been deprived of the piece of lip, that naturally belonged to it, by an injury inflicted some time since. The firmness of the lower, together with the close approximation of the lateral pieces of the jaw, precluded the idea of forcing the middle piece back so as to bring the lip together over it, and thereby preserving the full rotundity of the face, as should be done in all cases where it is practicable. Hence I divided the soft parts around the projecting portion of the jaw, and with one stroke of a strong cutting forceps separated the bone on a level with the lateral pieces of the maxilla. The bleeding, which was considerable from the anterior palatine artery, was soon stopped by pressure with the finger. The edges of the lip were separated from the alveolar process of the jaw and placed in the usual manner, after which they were nicely adjusted to each other, and kept there by two stitches with a single thread of uncolored silk. Adhesive straps, and the usual compress and bandage over the cheeks finished the dressings. No untoward symptoms followed, and in five or six days the union of the lip was perfect, allowing all dressings to be removed except a single strap of adhesive plaster to support the yet tender union of parts. And, though the operation produced a vast improvement on his former appearance, highly gratifying to his parents and friends, yet it showed very plainly the shortening of the upper jaw by the excision, and consequently the want of that natural symmetry of the features which is so desirable; and which might have been produced with perfect ease, if the operation had been performed before the first six months of the child's existence had passed. For then, the yielding condition of the bones would readily have permitted the projecting portion of the jaw to have been depressed, and the lateral parts of the lip brought over it, thereby preserving the full length of the jaw, as my own experience in the very worst of cases, has abundantly proved. It was, indeed, for the purpose of enforcing this and one other point of minor importance, that I presented the foregoing case, and not from any intrinsic merit in the case itself. For though the advantages of an early operation seem to be duly appreciated by all good surgeons of the present day, yet it is far different with the profession generally in the country. With them the cautions of Sir Astley Cooper, the equivocal advice of Samuel Cooper, and the positive instructions of Liston, Druitt, &c., prevail. And hence a large majority of these unfortunate children are left until they are two or three years old, to the great detriment of the patient and annoyance of its friends. The positive advantages of an operation between the ages of three and six months are, first: the ability to mould the alveolar process of the jaw into any desirable shape by judicious pressure, and consequently the ability to preserve its full length and proportions. Second, the much more rapid filling up of the roof of the mouth, when the fissure or fissures extend through the palate, &c. Third, the ability to acquire the power of speech or articulation of sounds much more perfectly. And fourth, the absence of all dread or opposition to the performance of the operation on the part of the child. The only offset to these important advantages is the *possible* occurrence of convulsions from the operation at so early a period. And even this danger, I am satisfied, has been much exaggerated, as the practice of Ledrun, Bell, Mays, Roonhuysen, Pancoast and many others plainly show. I have operated on three children under the age of six months, with the most perfect success. And decidedly the worst case of the three, which presented a double fissure extending through the roof of the mouth and palate, with the middle piece of the jaw projecting even with the end of the nose, was operated on, at the age of two months, without being followed by the slightest unfavorable symptoms. Another point about which there still seems to be a difference of opinion among good surgeons, is the propriety of using *pins* for keeping the edges of the lip in contact. When operations of this nature first came under the notice of the surgeon, it is not surprising that some unusual and complicated plan should have been deemed necessary, to retain the parts in their proper position. But since experience has so abundantly demonstrated the greater safety, simplicity and success, of the simple interrupted suture, and an adhesive strap, I was not a little surprised to find the *pins*, both pictured and advocated in the splendidly illustrated work of Prof. Pancoast. It is true that the pins already inserted, with the thread nicely coiled around them, make a fine looking picture on paper, but the increased irritation which their pressure produces, the greater difficulty of withdrawing them, and the far greater danger of their being accidentally disturbed by the child, have always induced me to give the interrupted suture the preference in my own practice.

Art. V.—*Successful Amputation at the Hip-Joint.* By Moses Sweat, M. D., of Parsonsville, Maine.

The patient upon whom this operation was performed was about forty-five years of age. Some time in 1832 he received a severe injury upon his left knee from which he never recovered. In 1842, ten years after the injury, he called in Drs. S. and J. M. Blake, who upon examination of the limb, found the knee-joint somewhat enlarged and an abscess formed upon the inside, just above the joint, which being opened, discharged half a pint of thick pus. In February, 1843, the limb was amputated by Dr. Grover, about four inches above the knee-joint.

In July, 1843, Drs. Blake, Barrows and Tewksbury were called in consultation with Dr. Grover, upon the propriety of another amputation. There was some inflammation in the limb and great enlargement and induration from the deposition of lymph. There were two openings in the end of the stump, and two on the outer side four inches up the thigh, which communicated with tortuous sinuses extending to the groin. The stump was laid open a few inches to ascertain the condition of the bone, which was found in a softened state, the medullary substance being destroyed to a great extent. The patient's health had materially suffered and there were symptoms of hectic. The discharge from the sinuses was moderate in quantity, consisting of thick white pus. The consulting physicians were all of opinion that the amputation should be performed as high as the trochanter major. Dr. Grover however supposed that but a small portion of the bone was diseased, and contrary to the advice of the consulting physicians removed but about three inches of the bone which was so soft as to offer but little resistance to the saw. The patient was so much exhausted at that time that another operation could not be performed. After the stump was dressed the sinuses continued to discharge as before and there was much inflammation about the groin and hip-joint.

On the 13th of January, 1844, I was called to visit the patient, who was confined to his bed and had lain upon his back (for he could lie in no other position) for more than a year. He was extremely feeble and much emaciated, attended with hectic and night sweats, and also with severe pains which could be mitigated only by morphine.

Upon examination I found the whole thigh, one foot in length from the groin, a complete mass of disease. It was much enlarged, measuring thirty-six inches around the hip and groin, and twenty-four inches around the lower part of the stump. Three large sinuses were open at, or near, the end of the stump; two or three outside of the femur, extending to the trochanter major—and two or three inside extending under the fascia nearly to the groin—and there were other deeper sinuses following the interstices of the muscles nearly to the head of the femoris, and communicating with those large ones—from all of which pus, indicating disease of the bone, was discharged in profusion.

After full examination I came to the conclusion that the only operation which gave any hope of success, was the amputation of the hip-joint. The Drs. Blake, who were in attendance, also advised this as the only hope of saving the patient.

When the patient had consented to the operation, he was placed on a table on his right side. It was deemed necessary in order to secure success in the operation, that all the diseased parts should be removed. When the sinuses were explored and their extent marked on the surface, it was found that the operation could not be performed according to any method recommended in any work on operative surgery, without retaining more or less of the diseased secreting surface in the wound. But by cutting in the following manner, a sufficiency of sound parts could be saved to completely cover the wound:—Commencing about two inches above the trochanter major towards the crest of the ilium, thence cutting down to the trochanter, (without removing any substance in order to make room to discharge the head of the femur), thence diverging inward in a circular manner so as to pass 2½ inches below the groin and terminating in a point which, with the posterior incision, made from this point in a circular manner round the posterior part of the thigh, to the point of divergence of the inner incision, formed an angle of the side of the scrotum, equi-distant from the trochanter.

While Dr. S. Blake compressed the large artery on the pubis, I made an incision through the integuments and cellular structure to the fascia—the whole posterior or outer mass of muscular substance, &c., to the bone was then cut through, and the largest posterior artery secured; the head of the femur was next dislodged from the acetabulum, and the remaining substance on the inside cut off by one stroke of the knife, and the femoral and profundal arteries were readily secured. So firm was the compression by Dr. B., that scarcely an ounce of blood was lost. Several small arteries were then secured and the wound, eighteen inches in length, after it was closed, was secured by sutures, adhesive straps and the many-tailed bandage.

Though extremely feeble, Mr. Howard bore the operation without any complaint and seemed quite comfortable after being replaced on his bed. The parts removed were carefully examined and the bone taken out. It was partially denuded of the periosteum and softened nearly its whole extent, and the cellular or cancellated structure was destroyed nearly to the trochanter minor. The wound was dressed on the sixth day after the operation, when the integuments were found to be united by the first intention the whole extent, except where the ligatures were left out at the inner angle. The patient regained his health rapidly and in a few months was able to go out. In the following November he rode alone in his carriage forty miles, to visit me at my residence, when he was as well as he had been previous to his illness.

Art. VI.—*Urticaria produced by Hydrocyanic Acid.*—By T. R. Varick, M. D., New York.

The subject of the following case is a child, aged 13 months, who was attended by me while laboring under an attack of acute bronchitis. The child had been taking the following mixture :

℞ Pulv. Ipecac. gr. v.
Mucil, Acaciæ ℥ ij.
M. a teaspoonful every hour,

which becoming exhausted, I desired it to be repeated ; but owing to the druggist not having numbered it correctly, he substituted the following:

℞ Acidi Hydrocyanici, (off) gtt. xx.
Tr. Belladonnæ, ʒ ss.
Syrupi Tolutani,
Mucil. Acaciæ, āā. ℥ ss.
Aq. distillat. ʒ vijss.
M.

as I afterwards ascertained by reference to his file. The alteration in the medicine not being known, it was administered as before, when, after the first dose (a teaspoonful), the face, neck, and the outside of the arms became covered with well-marked Urticaria. I should have observed that the eruption appeared in about half an hour after the administration of the medicine, and that it subsided spontaneously in about an hour and a half after its appearance. The dose was repeated in the evening of the same day with a similar result.

Remarks.—The child has always enjoyed perfect health, is of rather a plethoric make, and is nursing. The parents both healthy. It has never had any of the cutaneous diseases. The causes of Urticaria, as laid down by Cazenave and Schedel, are the handling of the leaves of the " Urtica divica," from ingestion of certain kinds of food, especially shell-fish of different kinds, as lobster, shrimp, crab, mussel, &c. Bitter almonds, mushrooms, cucumber, salad, and even oatmeal, vinegar, honey and certain medicines, such as turpentine, balsam copaiba, and valerian, also produce this disease, (Vide Cazenave and Schedel on the Skin, American edition, p. 54—55). It may be urged that the eruption was produced by the Tr. Belladonna, contained in the prescription, as it is well known to give rise to an eruption, resembling scarlatina, with swelling of the face, (Vide Pereira, Mat. Med.). But I am inclined to attribute it to the Hydrocyanic Acid, and for these reasons : 1. Urticaria may be produced by bitter almonds, and Hydrocyanic Acid is the active principle involved. 2. The entire difference of the eruption occasioned by Belladonna and that which appeared in this case. It may also be urged that, as the child was teething, (a fact that I omitted to mention), the occurrence of Urticaria was a mere coincidence with the administration of the medicine. But this point is to my mind satisfactorily settled, by the following facts: 1. The patient, although teething, has never had anything of the kind, before or since. 2. By the repetition of the dose similar symptoms appearing. The latter reason is to my mind the most conclusive, and entirely does away with the idea of coincidence. Another thing worthy of remark, is the smallness of the quantity which produced the symptoms, as may be ascertained by reference to the prescription, to be a little more than a drop at a doze. The acid was of Scheele's strength.

Art. VII.—*Remarks on the Alnus Serrulata, or Common Black Alder.* By James Helmich, M. D., of Zanesville, Ohio. (Communicated in a letter to the Editor.)

Zanesville, Ohio, February 5, 1847.

I noticed in the July No. for 1846, of the New York Journal of Med. and the Collateral Sciences, an article on *Indigenous Medical Botany,* by S. W. Williams. Among the indigenous medicinal plants named by Dr. Williams, and to which he has called the attention of the readers of your valuable Journal, is the "*Alnus Serrulata*" or common Black Alder. It is not my purpose to gainsay a word that Dr. W. has said in describing its medical use, nor am I certain that he has said all that he has to say about it; but I am sure he has not said all that should be said in its favour. Dr. W. has pointed out several uses of the Black Alder entirely new to me, viz.: repelling the milk in the female breast—the inner bark of the root being emetic—a decoction of the cones for the suppression of hemorrhage—and in hæmaturia.

I have long been in the habit of prescribing a decoction of the Black Alder, and more recently of the extract (a more convenient and eligible form) in chronic affections, and more particularly in scrofula and secondary syphilis. I have seen some of the most happy results from its use in both these forms of disease. Mrs. S— was admitted into the county alms house, with secondary syphilis of long standing, and a constitution broken down with the disease and the use of mercury; she had ulcers in the nose and palate, nodes on the head, legs, and arms; and unable to walk from stiffness of joints; indeed she seemed to be a hopeless case. She was ordered a strong decoction of the Black Alder, and a milk and vegetable diet, to which she rigidly adhered for six months, when she left the institution perfectly cured, and remains well up to the present time, a period of three years.

A clergyman's lady of this vicinity had scrofula, with open ulcers, large and ill-conditioned; she was entirely cured by the use of a decoction of the Black Alder. This lady has removed a distance of a hundred miles from this place, and although cured, she continues to use it occasionally as a preventive; she has twice sent to this place to procure, as she says, the "genuine article."

I was acquainted with an intelligent old gentlemen, (since dead), who cured in his own person a cancer of the lip with a beer made from the bark and small branches of the Black Alder.

I mention the above, not as the only cases of cure with this medicine, but as prominent cases in three different forms of disease. I am persuaded that the *Alnus Serrulata* is one of our most valuable vegetable alteratives, and deserves the careful and attentive investigation of the physician, pharmacien, and medical botanist.

More recently I have witnessed the valuable properties of the extract, prepared by the evaporation of the decoction to the consistency of thick tar; it makes a very convenient form for pills or solution. I prescribed a strong decoction of the extract, two months ago, in a case of impetigo of long standing, and which had proved very obstinate, refusing to yield to all the various plans of treatment both general and local, persisted in for more than three years. The lady was of full habit, somewhat corpulent, but general health good; the disease affected both ankles over the instep. She was directed to drink a decoction of the black alder and ℥ j. of the extract dissolved in ℥ viij. of water for a local application twice a day. In two weeks her husband reported to me "that the ℥ j. of extract had done more for her than all other remedies put together." At the present date, two months since the first application, she is entirely cured.

Impetigo is in my experience a very intractable form of disease; yet, in this case it yielded readily to the extract of Black Alder. It is the first and only case I have ever prescribed it in as a local remedy; I intend however to give it a more extended trial in some other diseases, where its tonic and astringent properties will be more fully tested.

I am informed by the individual who prepares the extract, that it is an invaluable remedy for dyspepsia, taken in doses of ʒ ss. three times daily.

I have intentionally condensed these remarks to bring them within the compass of an ordinary letter; and if you think my experience with this medicine, and these remarks are of any value to the profession, they are at your disposal.

Art. VIII.—*On the Use of Quinine*, &c.—By W. S. King, M. D., U. S. A. (In a letter to the Editor.)

Fort Leavenworth, Feb. 20, 1847.

Dr. C. A. Lee,—Sir,—In the New York Jour. Med. for November, 1846, favorable allusion is made to the practice of administering quinine, in combination with a diaphoretic. Without being aware that this mode of giving quinine had been recommended or used by others, I have been in the habit of resorting to this combination for some time past, particularly during the past summer.

The novelty and excitement incident to the Santa Fe expedition, caused much anxiety among the sick here, lest their recovery should not be rapid enough to enable them to leave with their companies. The interests of the service also rendered it peculiarly desirable that the cures should be as prompt as possible. As a means of effecting the desirable object, quinine and sp. nitr. dul. (generally, however, with the addition of tinc. opii or tinc. opii comp.) was my usual and favorite prescription. This formula was used, in several hundred cases, of intermittent and remittent fevers, and, in almost every case, with happy effect. With opium, as an adjunct to the quinine and sp.

nitr. dul., it will readily be conceived that the value of the prescription is increased, and is rendered capable of fulfilling a much greater number and variety of indications. It may then be employed in those cases of fever, where there is much restlessness and nervous excitement, and, by allaying pain, checking various symptoms, soothing and tranquillizing the patient's feelings, greatly contributes to his comfort and convalescence. The diaphoretic properties of the prescription are much increased by the addition of the opium. The power which this medicine possesses of restoring the equilibrium of the circulation and excitement, by determining to the surface, makes it particularly useful in the hot stages of fever, and enables you to use the quinine earlier than otherwise would be safe.

There are several advantages in this mode of giving quinine. 1st. There is a gain as to time, often of twenty-four hours in intermittents, and in remittents, of perhaps several days, which would otherwise be lost in waiting (as recommended by good authority) for the apyrexial intervals, before exhibiting the quinine. 2. By tending to lessen and thereby shorten, and speedily terminate the paroxysm of fever, you place the patient in a short time, in a fair way to recover, and thus diminish the liability to complications which often occur, and in a great measure secure him from the consequences of accidental affections of a distressing and dangerous character. 3. To shorten the paroxysm of fever, and thus destroy the chain of morbid influences that surround the patient, *before* the strength and restorative powers of the system are weakened, are objects of the highest degree of importance, particularly so in broken down constitutions, or, in such as are feeble and exhausted by previous injurious influences. It needs no argument to show that any means calculated to promote these results must exert an influence highly curative.

I have been much pleased with the success attending this union of remedies, and believing it to be capable of fulfilling the indications I have pointed out, can cordially commend it to those who have not yet tried this method.

Not considering that the use of purgatives or other preparatory treatment was necessary in all cases, I have frequently given the quinine and diaphoretic (with or without the opium according to circumstances) at once on the patient's reporting sick, and have had no reason to regret it. By this plan the patient is exempted from the disagreeable and debilitating effects attending the exhibition of emetics and purgatives, which in many cases may be happily dispensed with. The following formula answers very well in some cases, and where no irritability of the stomach exists, is often preferable to the one already mentioned.

℞. Tinct. Opii Comp.
Sp. Nitr. Dul. āā. ʒj.
Vin. Antim. gtt. xx.
Solutio Sulphatis Quinæ ʒj.—ʒiij.

Fiat mist. Sumatur alternis horis. The antimonial was generally omitted in my usual prescription which was similar to the above, with this exception. I do not pretend that in all cases of intermittent and remittent fever, this alone will answer, but, that in experimenting with remedies, or plans of cure, I have found that I could cure and return to duty a greater number of cases, and in a shorter time, by this, than by any other medical treatment. I do not offer these considerations because I esteem them new, or worthy of special attention, but for the purpose of bringing the practice of using quinine in combination with various other substances, (which I believe has many advantages over the plan of giving it alone), to the attention of the profession, with the hope that farther experience will lead to improved modes of exhibiting this article, that will be free from the objections now made by some to the use of this invaluable medicine.

[No apology will be needed for appending to the above the following interesting case recently received from Dr. King.]—(*Ed.*)

Fort Leavenworth, May 3, 1847.

Dear Sir,—An article in the March number of your Journal, entitled "Deglutition excited by dashing cold water on the Face," reminds me of a case I witnessed in the winter of 1843, among the Winnebago Indians in Iowa. An Indian belonging to this tribe, in a drunken quarrel with his wife, received a severe flesh wound in the thigh. Owing to his intemperate habits, and their improper method of treatment by filling the wound with various irritating substances, violent inflammation followed, attended with severe constitutional symptoms from which he finally died. On the day previous to his death, I was requested to call and see him. When I arrived, he had lost all power of deglutition, and the nourishment his wife was attempting to administer, with the hope of preserving his failing strength, when poured into his mouth, remained unswallowed, and threatened instant death from suffocation. By my direction he was turned over on his side, to allow the fluid to escape from his mouth and enable him to breathe. His wife, who was unceasing in her attentions, then filled her mouth with cold water, and introducing a small quantity of the broth (by means of a wooden spoon) into the mouth of her husband; she immediately spurted the water from her mouth on his throat and chin, and, at the same time using gentle frictions with her fingers to the same parts. The muscles of deglutition were excited to action instantly, and the fluid was swallowed. This was repeated again and again with like success. The custom of using the mouth in the manner mentioned to eject the water, is one which prevails among almost all Indians, and is generally employed in washing their young children and offensive wounds or sores. It may not be uninstructing to notice another part of the treatment adopted by this squaw in this case. Observing the respiration to become exceedingly laborious, in consequence of a quantity of matter clogging the air passages, she procured a long feather, and passing it down the throat and larynx, it was immediately drawn out loaded with a tenacious phlegm, which she removed by drawing it between her fingers, and again introduced it. In this way, in a short time, a large quantity of matter was removed with decided and speedy relief to the patient, manifested by the breathing becoming freer and more prolonged. Occasionally she dashed the water on the chest in the manner mentioned, evidently with a view to excite the respiratory effort. In these attempts to relieve her husband she persevered until an hour before he died. He was perfectly conscious until near his end, and encouraged her in these efforts by intelligent signs expressive of his wishes to that effect. The life of this Indian appeared to have been prolonged by the untiring efforts of this poor squaw, as I believe he would have ceased to breathe sooner, had not the timely removal of the obstruction saved him from suffocation. In the case of his death her own life was forfeited by the sanguinary code of the Indian, and she was accordingly killed by her husband's relations at the grave of the deceased, the day after he died.

Art. IX.—*Puerperal Anæmia; or a peculiar anæmic Condition, occurring in gestating and lactating Females.*—By H. N. Bennett, M. D., of Bethel, Ct.

My design in the present paper is to describe a certain morbid state, which I conceive to be peculiar to females who are either pregnant, or in conditions consequent to pregnancy; in short, a morbid state resulting only from the processes of reproduction. Within a few years past, I have met with numerous cases of the character which I am about to describe, and my description will be drawn chiefly from observation, as as I have never seen in the Journals or elsewhere, any accurate and complete account of this disease. Several articles have appeared at different times in the American Journal under the head of "Nursing Sore Mouth," which give a very correct description of one of the most common and decisive symptoms of the affection, namely, a peculiar inflammatory state of the buccal and lingual mucous membranes. One of these articles is by Dr. Backus, of Rochester, N. Y., another by Dr. Taylor, of Monticello, Florida. An extract from a paper by Dr. E. Hale, jr., was also published in the same Journal for April, 1842. I may refer to these articles in the sequel of this paper, only saying for the present, that the true pathology of the disease is not in my opinion, recognised in either of the papers mentioned.

According to my experience, this affection frequently commences from the seventh to the eighth month of gestation, a period at which the development and growth of the fœtus are most rapid, and draw most forcibly upon the vital powers of the mother. The female begins to assume a pallid appearance, not unlike the anæmic pallor common to cachectic conditions; but this appearance is not at first accompanied by emaciation. The appetite is often impaired, and digestion rather difficult, accompanied with gastralgia, especially after taking certain articles of diet. There is a decided tendency toward diarrhœa where the gastric symptoms are marked. The function of digestion, and the appetite may, however, at this period, remain unimpaired, and the female only complain of lassitude, neuralgic pains in different parts of the body, and some slight cerebral symptoms common to all anæmic conditions. After a continuance of this state for a longer or shorter period, it is not uncommon to witness the occurrence of œdema. This may supervene either before or after delivery, and is confined to no particular part of the body; it is very generally perceptible in the face. It may be either slight or excessive. I have known one instance in which the œdematous effusion was accompanied by alarming symptoms. In this case the œdema was excessive, and was attended by accidents on the part of the respiratory organs; namely, difficulty of breathing, respiration accompanied with humid *râles*, and inability to lie in the recumbent posture. The lady was delivered of twins, and notwithstanding the temporary increase of all the symptoms, after this event, she finally recovered. This œdema has no special characters, and is to all appearance, similar to that which occurs in other anæmic states.

Accompanying the symptoms just described, or immediately succeeding it, I have frequently seen the "Sore Mouth," *previous to delivery.* It is this symptom which I look upon as pathognomonic of the affection in question. The inflammation of the buccal and lingual mucous membranes, has characters which I believe to be peculiar, and which I have never seen in any other disease. Upon inspection, the parts affected appear dry and polished, of a pink color of different shades, sometimes very nearly approaching a red, while the other portions of the mucous membrane appear paler than natural. The inflamed parts are usually the edges and inferior surface of the tongue, the surface of the lower lip in contact with the teeth, and that of the cheeks. The parts thus affected, are painful and excessively tender. The first indication of the development of this inflammation is very correctly described by Dr. Taylor. There is "a sensation of soreness and heat of the tongue and lining membrane of the mouth, accompanied by a discharge of a thin watery fluid." "The patient compares the pain and heat of the mouth to the sensation produced by *scalding.*" The female is compelled to avoid those articles of diet which contain much salt, or spice of any kind, particularly pepper. Sometimes even all solid food.

At a later period of the disease, you will frequently see, within the limits of the pink patches, especially upon the edges and inferior surface of the tongue, and upon the labial membrane, a number of pustules or rather vesicles of some size, containing a milky fluid, which appears as if lifting up a thickened and indurated epithelium. These pustules sometimes degenerate into small ulcers with raised edges, which are exquisitely tender. At other times, the fluid would seem to have been reabsorbed, or discharged without leaving an open ulcerated surface. In any case the ulcerations occurring in this disease, are very distinct from those of aphthous affections. I may remark, in passing, that this inflammation, particularly in its first stages, has appeared to me very superficial, and that it materially changes the character of the epithelium, which becomes thickened and of a smooth polished appearance. This inflammation is not peculiar to the mouth, it sometimes occurs upon the external organs of generation, and occasions a very troublesome soreness and pruritus. I have known but two instances of this kind. In these the mouth, and labia were affected conjointly.

While the mucous membranes of the mouth, &c., are in this condition, there are also increased symptoms of gastric disturbance. The appetite is very much impaired. All stimulating and acrid ingesta produce a lively burning sensation at the epigastrium. The bowels are sometimes constipated, but usually immoderately loose, the discharges being thin and watery. In short, the whole gastro-intestinal tube gives evidence of severe functional disturbance, if not of anatomical lesion.

It is very commonly the case that the "Sore Mouth" does not occur until after delivery, and sometimes not until after lactation has been, for a length of time, fully established. It then, together with the gastric disturbance, (and I believe the two are inseparable), constitutes the chief evidence of the morbid state. The affection of the mouth cannot, however, as supposed by Dr. Hale, be "dependent upon some peculiar state of the system, produced by the secretion in the mammæ." I have recently attended a lady, who in the last month of her pregnancy, and for the first time, suffered very much from the "Sore Mouth," but who has not felt it since her delivery, being a period of three months, and, notwithstanding, she nurses her child, and has an abundant secretion of milk. The following case, which I shall briefly relate, and to which I have before referred, also militates forcibly against such a supposition.

Mrs. ——, pregnant with her first child, passed through all the periods of gestation in remarkable health. During the period of lactation, she suffered from the affection of the mouth. In less than a year she became again pregnant, and as the event proved, with twins. About the seventh month, she began to show the primary symptoms of the puerperal anæmia. She soon became œdematous; the œdema was general, and accompanied by the alarming symptoms which I have previously mentioned. She had also at this time the "Sore Mouth," subsequent, however, to the first appearance of the œdema. Immediately after delivery, there was an (exaggeration) of all the symptoms, and her again. life appeared in imminent danger. *There was no secretion of milk whatever*, and her infants were nourished by other means. After a period of some months she recovered her usual health. Upon her next pregnancy, at the same period, she presented the same train of symptoms, though in a minor degree. She had, however, a more or less profuse diarrhœa, during the whole of the last mouth. The affection of the mouth was as severe as in her former pregnancy; the œdema much less. After delivery no immediate change in her symptoms. There was a slight secretion of milk, but it was thin and watery, and her infant appeared to suffer from its ingestion. She ceased to suckle it, in two weeks after its birth. This lady has recently been again delivered of a healthy child, after passing through her pregnancy in good health, and is now suckling it, without suffering any particular inconvenience. She says, she occasionally feels the symptoms of "Sore Mouth."

I have never observed in this complaint any decided febrile symptoms. The pulse has appeared to me very similar to that of chlorotic anæmia. I have not practised auscultation in these cases, with a view to discover the cardiac and arterial *bruits* usually found in chlorosis. No case has ever occurred under my immediate observation, which progressed to a fatal termination, and I can, consequently, give no accurate account of the ultimate effects of the disease. Dr. E. P. Bennett, of Danbury, (to whom I am indebted for many observations of this peculiar form of anæmia), has, however, recently seen two fatal cases, in both of which, he informs me, there was profuse hemorrhage from the mouth and nose, as well as from the bowels. One of these females had been in perfect health previous to conception. She died in a few weeks after her accouchement.

From the observations which I have made of this condition of puerperal females, I am led to consider it a disease, consisting primarily in a lesion of the circulating fluids ; a lesion followed by symptoms known only to the puerperal state. For while this possesses some of the appreciable characters common to all anæmic conditions, yet it differs from them all in certain of its more prominent features, and especially in that of the inflammatory affection of the mouth.

The modern researches upon the blood have shown conclusively, that pregnancy exercises a marked influence upon the composition of this fluid, the most notable characters of which are diminution of the red globules, increase of the proportion of water, slight increase of fibrine, diminution of the albumen of the serum, &c. From the analyses made by Drs. Becquerel and Rodier, of the blood of pregnant females, those gentlemen derive, among others, the following conclusions : that, "in a certain number of cases of pregnancy, when it is not yet advanced, and has exercised no very sensible influence upon the organism, the composition of the blood is not altered ; *in proportion as pregnancy approaches its termination the blood is in general modified*," (Gazette Medicale de Paris, 1844). The modifications observed by them, are those just mentioned. It is an exaggeration of these modifications which, I suppose, constitutes the primary pathological condition, and thus the *physiological* state of the pregnant woman, becomes the transition to the *pathological* one, the symptoms of which I have endeavored to describe. But these changes in the proportion of the constituent principles of the blood, considered isolatedly, differ very little from those which occur in other circumstances ; in fact, they are very similar to those occurring in every anæmic state. Why then the symptomatic differences, and special anatomical expressions of puerperal anæmia ? It is reasonable to suppose they are the result of the specific impression, made by the process of reproduction, through the medium of the nervous system, upon the entire organism, and more especially upon the assimilating organs. This view seems the more rational, when we consider that, while it is the stomach which suffers, the greatest sympathetic and indeed functional disturbance in the early periods of pregnancy, it is also this organ and its dependencies, which manifest the most prominent lesions from the disease in question. The fact that there is frequently no appearance of this difficulty, until a certain period after the commencement of lactation, is to my mind, only another evidence that its primary cause is the impoverishment of the blood from the establishment and continuation of a function consequent to that of gestation. The vital fluids already somewhat exhausted in the nutrition of the fœtus, and by the losses consequent to delivery, are unable to sustain any further drain, without inducing true pathological changes in the solids ; and modified by the specific impression of the reproductive process upon the economy, which is continued even in lactation, these changes still retain a special stamp.

As this paper has already reached some length, I shall defer the consideration of *treatment* to a future number, when I may also refer to some facts which further illustrate the pathology of the disease.

ART. X.—*Case of Hydatids of the Uterus.* By WM. H. HANCHITT, M. D., of Cold Water, Michigan.—(Communicated by Professor C. B. Coventry, M. D.)

MRS. C., of Cold Water, Michigan, aged twenty-five, of a sanguine temperament, and firm constitution, had always enjoyed good health from infancy, with the exception of an occasional attack of intermittent fever, of short duration, which left her free from organic or functional derangement. She is the mother of three children. I attended her in the delivery of the last two. These labors were natural and easy, as also was the first, as I was informed. She always had a good getting up after each confinement. She never had a premature birth; never suffered any derangement of the menses, except from pregnancy. There is a difference of about two years between the birth of each of her children.

She had a return of the menses when her youngest child was about a year old, still nursing it, as she had with her former children. About the middle of February, 1844, she had a full and natural flood of the menses, which was the third or fourth time since her last labor; her youngest child being about fifteen months old. Two weeks from her last menstrual period, she jumped from a low broad fence, and immediately on alighting, she was taken with severe distress in the back, which extended to the hips and through the whole pelvis, and nearly produced syncope. She however, soon recovered, so as not to suffer any particular inconvenience, only some slight pain and uneasiness, which made her pass a restless night, but she slept well in the morning, and arose feeling perfectly well, and did not recollect suffering any from the injury after. Two weeks after the injury, making four weeks after the last menstrual period, she was slightly feverish; had morning sickness; no return of the menses; and considered herself pregnant. She noticed nothing in her symptoms different from those in former pregnancies, excepting in degree, being more severe, and continued bad up to the end of the third month, having formerly subsided in a few weeks. She does not recollect of having pain, or tenderness, in the region of the uterus.

August 7, 1844. Summoned to visit her in haste, found her flooding severely, but sitting up; slight pain in the back; no bearing down, or periodic pains. (I had not been advised with regard to her pregnancy before this, but considered her so, as I had seen her frequently; did not know of the injury she received in February.) Considered herself in the 6th month of gestation, having menstruated the last time about the middle of February. Her pulse was full, not compressible; face flushed, and heat moderately increased. She had been making a bed an hour before, and was seized with flooding immediately after lifting the feather bed, which she said strained her back, and left a constant but slight distress across her loins. I took sixteen ounces of blood, advised her to keep her bed, and not to leave it on any occasion. Morphine and acetate of lead, once in two hours; cold drinks and low diet.

August 8. Found her comfortable; pulse natural, skin cool, flooding stopped, having ceased a few hours after first visit. No pain in her back, or distress across her loins. Prescribed salts and senna; after the operation of which a powder of the morphine and lead, and discontinue if the flooding did not return.

August 9. Found her sitting up; cathartic had operated well; had taken one powder of the morphine and lead, and slept well during the night. Pulse natural, skin cool; no pain, soreness, or flooding, or any inconvenience, save slight debility. Advised low diet; very little or no exercise; allowing her to walk about her room, and to keep her bowels soluble with an occasional Seidlitz powder.

September 14. I was called to visit her in haste; found her flooding freely. She had taken considerable exercise the past month, and had eaten heartily of nourishing diet. Her pulse was moderately increased in frequency and force; hands cool; face flushed; chest and abdomen hot. Attempted to open a vein, but she fainted from excitement, while I was ligating the arm. She is always much excited about being bled. Have had to abandon it at other times from the same cause. Gave full doses of acet. lead and morphine; ten grs. of the former, and one-half gr. of the latter, once in two hours. Called again in a few hours; flooding had ceased; pulse slow, soft, and skin cool and dry; stomach slightly nauseated. The distress she complained of in her back on my first visit to-day, entirely relieved. Abdomen more enlarged than usual for her at this period of gestation, and had been larger from the commencement than at similar times in former pregnancies. Ordered quiet, cool drinks, recumbent position, a Seidlitz powder once in two hours till the bowels were freely moved; and then, if the flooding returned, give the powders of lead and morphine in half doses, once in two hours till it ceased.

September 15. Found her up and walking about the house, giving directions to the servants; flooding has not returned; Seidlitz had operated freely; felt quite well, had eaten some breakfast. I have here stated that during these attacks, and indeed through the whole period of the case to its final termination. I could not discover that there was the slightest propulsive effort of the uterus, though I had frequently questioned her on the subject. I urged the necessity of her keeping quiet, to avoid even lifting a pail of water, making her bed, or sweeping her room.

October 16. Was requested to visit her, and found her flooding moderately, and had had several light attacks of hemorrhage since my last visit. Notwithstanding my injunctions, she had exercised considerably about her domestic affairs, eaten heartily, walked some distance to her neighbors and to church. Found her pulse feeble, skin cool, face pale, and slight distress in her back, but subsided some during the last month, but as large now as usual for her at this period of gestation. I now learned from her that she had discovered no motions since she considered herself pregnant. This led me to suppose that there might be some thing unnatural. I now learned, for the first time, of the injury she received in jumping from the fence two weeks after her last menses, but I could not attribute much to that, as she did not suffer much inconvenience from it. On questioning particularly, I found she had suffered much during the first three months, with acid stomach, headache, and severe morning sickness. Through the fourth and fifth months, up to the time of her first attack, she had felt well, being entirely free from the above supposed symptoms of pregnancy.

I now made a thorough examination of the abdomen; found no tenderness on firm pressure; could feel a large mass of an oval form which presented a uniformness on every part; stated to the patient my fears that she was not pregnant, and proposed an examination per vaginam, but was urged to delay a short time, advised perfect rest, mild diet, and to obviate costiveness with an occasional Seidlitz powder, and use injections, per vag., of sulph. zinc, twice a day, previously cleansing with warm soap and water.

From this time I knew little of her till Jan. 9th, 1845, when I was requested to visit her. I found her very feeble, with a cool skin, feeble, frequent pulse, very easily compressible, face pale, countenance sunken, stomach irritable, appetite poor, and bowels costive; no soreness of uterus but a constant aching distress in the back. There was some discharge from the uterus, without color, in the forenoon; but about 4 o'clock, P. M., the skin would become hot; face somewhat flushed, and pulse increased in force and fulness, and the discharge entirely stop. I found she had had a slight discharge every day since my last visit, October 16, 1844, sometimes quite free and considerably colored; at others scanty and without color. She was only able to be dressed in the morning, moved to a lounge in her sitting room, and spend the day in a recumbent position. Eleven months had elapsed since she supposed herself pregnant. I insisted on an examination *per vag.*, to which she consented. I found the os uteri a little open, but not enough to admit the end of my finger. The neck of the uterus was partially obliterated, and very firm and unyielding. By pressing on the abdomen, I could pass my finger quite a distance around the mouth of the uterus externally, but could not enter it with firm pressure. There was not the slightest tenderness on pressure. I could discover nothing but a uniform, solid, slightly elastic substance in the uterus. My hand was not colored in the least by the discharge, which consisted of transparent mucus-like matter, without any particular odor. I told her that I thought there was a semi-organized mass in the uterus, nourished by a vascular connection, but could not say at that time it was of the nature of hydatids.

My friend Dr. Sprague, of Cold Water, was now called in council, and after deliberation, we concluded to administer the *ergot* in order to excite the action of the uterus to throw off the mass, and a day was set for the trial. Previous to this time, however, I had another examination per vaginam. The os uteri was firm and unyielding. I told the friends I feared the result; we should probably separate the mass, and should not be able to force it through the mouth of the womb, and fatal hemorrhage might be the consequence. I would propose a palliative course, and wait the result; that ultimately the case would come to a state in which the os uteri would be dilated or dilatable, and the uterus take on action to expel its contents, and then we might use such remedies to assist as the nature of the case might indicate. This was consented to.

In addition to the symptoms mentioned above, I should have stated that she has symptoms of torpid liver, as icterode skin, jaundiced eye, and costiveness, showing that her other symptoms are influenced more or less from this cause.

Ordered grs. x. calomel in a tablespoonful of oil, to be taken at six P. M., that it may operate during the fever, after the operation of the calomel, $\frac{1}{4}$ gr. morphine, and the following to be taken during the cold stage, quinine gr. j., camphor gr. ij., morphine $\frac{1}{4}$ gr., once in four hours. Small doses of Dover's powder during the fever.

Continued the above powders for 7 or 8 days, with a dose of pills every other night, composed of calomel, rhubarb and aloes, equal parts. Under this treatment she recovered from the evening exacerbations of fever, and the morning cold stage; the icterode hue of the skin disappeared, the capillary circulation became good over the whole surface, appetite good, strength much increased, and scarcely discharge enough from the uterus to stain the linen; what there was resembling the lochia. The abdominal tumor stationary, os uteri as firm as ever.

I now prescribed a decoction of red cinchona, cinnamon and rhubarb in equal parts, mixed with the same quantity of good Port wine, two tablespoonfuls three times a day. She continued this till the middle of February, and constantly improved in strength, but had occasionally a slight return of the discharge *with color*, and all the time some discharge which was colorless.

At this time she received a visit from her mother, and accompanied her home to Detroit, a distance of 110 miles, 25 miles in a carriage and the remainder of the distance by rail road.

Dr. P. of Detroit, after an examination of the case for a few days, decided on giving her ergot on the supposition, probably, that it was either a case of polypus or hydatids of the uterus. It was, however, soon discontinued, on account of its producing considerable hemorrhage, &c., and remedies were given to counteract its effects, followed by the palliating and strengthening course I had adopted.

She continued under Dr. P.'s care till the middle of April, when she returned home, and placed herself again under my care.

I found her very much in the same state of general health as when she left two months previous; she had become quite discouraged and melancholy. Dr. P. predicted that she would eventually recover, regarding the case as one of hypertrophy of the uterus.

I made an examination per vag. It will be recollected that at my last examination, two months previous to this, I found the cervix uteri not more than half obliterated. I now found it *wholly obliterated*, but the os tincæ would only admit the end of my finger, and was very firm and unyielding. The abdominal tumor was not much altered. She felt as though there was a dead weight, a ball in the abdomen that would roll from side to side, as she turned over. The distress she had all along suffered in her back was somewhat increased. I informed her that my former opinion was now doubly strengthened; that there was a mass of something in the womb, which was nourished by a vascular connection with the uterus, probably of a placental character, and that the floodings had been caused by detachments or ruptures of the connecting vessels, by jolts and jars from exercise. There had never been the slightest bearing down or propulsive effort of the uterus, but yet there was a slow, but constant change taking place in the cervix and os uteri. In my opinion, the diseased action was drawing to a crisis, and ultimately there would be a natural effort of the uterus to unburthen itself. The flooding was trifling, her strength improving, and I had strong hopes of a favorable termination of her disease. I thus rekindled a gleam of hope in her mind, for she had entirely given up all hope, and became a perfect victim of despair and melancholy.

Continued the use of the bark and wine, having occasional resort to the quinine, to prevent the return of the evening fever, and used a saturated solution of sulph. magnesia, acidulated with sulph. acid., to obviate costiveness, with which she was troubled. Under this treatment her general strength slowly improved, until she enjoyed very comfortable health.

May 22. I was called in haste—found her on her bed, icy cold, face perfectly colorless; in almost constant syncope, occasionally gasping for breath—no pulse perceptible at wrist; was informed that 15 minutes before I was called in, she was seized with violent bearing-down pains while conversing with her friends. She immediately went into a bedroom and the women present assisted her on to a vessel; in a short time she fainted. When they removed her, the vessel (a chamber pot of common size) was seven-eighths full of blood. I prescribed sulph. ether, and camphor, mustard sinapisms to stomach, legs and arms. On examination *per vag.* found os uteri dilated as large as a 50 cent piece, soft and yielding—slight propulsive effort of uterus;—gave small quantities of warm water and brandy, camphor and ether. She soon recovered considerably. I now gave 20 grs. of ergot, and repeated it every twenty minutes till she had taken 5 doses; five minutes after the fifth dose, she began to have light but frequent pains, and in about six minutes, a large mass of hydatids was removed; slight afterpains followed, with trifling flooding; and she passed a tolerably comfortable night.

The mass of hydatids, when first removed, was enveloped in the membranes, and was a perfect cast of the shape of the uterus. The old detachments which had occasioned the flooding, were distinctly marked on the mass, which extended from the cervix upward, about equal on all sides, and constituted about one-eighth or one-tenth of the whole mass.

She had slight chills and fever for two or three days, which readily yielded to a moderate use of quinine. The lochial discharge continued about three weeks. The bark and wine was continued all this time. The discharge from the uterus ceased in about four weeks; on the 29th day after, she was taken with flooding again, quite freely. The blood coagulated; ordered lead and morphine, which checked it in a short time; a colorless discharge now continued two weeks, when it entirely subsided. Prescribed tinct. mur. iron. Four weeks from time of last flooding menstruation returned—after this I gave her a pill composed of carb. iron, sulph. zinc, and ext. cinchona; also, occasional injections of solution of sulph. zinc. At the end of next month she again menstruated regularly, when all remedies were discontinued.

When the middle of September, 1845, arrived, the expected catamenia did not return. She was troubled with slight morning sickness, for a few weeks, and from that time up to the present, (Dec. 17th), she has rapidly regained her strength and health. Has not menstruated since the middle of August—abdomen about as large as at the fourth month of pregnancy. She says she feels motions distinctly, and thinks without doubt she is pregnant.

Art. XI.—*On the Influence of Malaria in the South-west.* By Dr. A. G. Lawton, of Marshall, Missouri.

I did not intend to take up this subject again so soon, but I have been induced to offer some further remarks, in consequence of a communication from Dr. Gist, of Mississippi, which appeared in the March number of the New York Journal of Medicine.

Dr. G. it appears, has little confidence in the potency of this so-called enemy of man, (malaria); but upon what grounds he rests his opinion, does not fully appear; as he is however in favor of a philosophical disposition of the subject, I will not object to malaria being called *a gas*, or even *carburetted hydrogen*, in combination with some unknown element, or as some say, an excess of carbon in the air; but until this is proved, we can do no better than to call it with the Italians, Malaria.

It is evident that the atmosphere is capable of holding suspended an immense amount of matter, which rises from the earth in a gaseous form. In the incineration of wood, the greater part of which passes into the air, the atmosphere contains many principles which neither the chemist nor a common observer can detect. And it is just as reasonable to believe, that there is a substance evolved from the earth's surface, or from decomposing matter, highly obnoxious to animal life, which may produce certain effects, as intermitting disease, as it is to believe, that carburetted hydrogen is generated in the coal mines of England, or that it exists in stagnant pools of water.

The Doctor goes on to state the prominent causes of disease in the South, as, "the sun's rays, the long summers, atmospheric vicissitudes, humidity, &c." I think that solar heat, as a morbid agent, is greatly overrated, for I believe it seldom or never operates, as a predisposing or primary cause of disease. The supreme ruler of the universe, has given us this beautiful orb of light, for the sole benefit of all earthly existence, under whose benign influence all nature is quickened into life, and under whose life-cheering rays, flowers bloom, and vegetation grows; withdraw this influence, and earth is but an empty void of darkness and despair. Sometimes indeed we notice a blade of corn to wilt and perish on a very hot day, being unable to resist the intense rays of the sun. But when it does so, we may generally find a worm at the root, or the root is in some way diseased or affected; and when the sun's influence takes effect suddenly on man, we shall generally find by a careful examination of the case, that the patient's constitution is already under the morbid influence of some more potent agency.

Now it is not possible that a source, from whence such countless blessings spring, can at the same time be a silent dispenser of disease, sapping the foundation of that very life which it nourishes and supports.

If the sun's rays, or solar heat, were so great a cause of disease, it would follow, that disease would exist, cæteris paribus, according to their intensity, which is not the case, for many countries are healthy, although situated in very warm latitudes, and this is the case whenever we find a barren soil, no swamps or stagnant pools, good water, &c.

The firemen employed on steamboats, navigating our great Southern rivers, are not only exposed to the intense rays of the sun, but to a still more intense degree of heat from the furnace. But in all my travels, I have never been able to discover, that these men were more predisposed to disease than others, but on the contrary, I have heard it confidently asserted, that they were less disposed to disease than other individuals employed on these boats.

The moon, as well as the sun, was formerly supposed to have a powerful influence over animal bodies. Psalms cxxi. ver. 6. "*The sun shall not smite thee by day, nor the moon by night.*" Here they attributed the same effect to the moon, (a stroke of the moon). Is it not probable, at least, that this supposed influence of the moon, noticed by them, came from the miasma, or marsh poison, falling with the night dews, and that it only happens in malarial countries, at certain seasons of the year; at which times, if individuals are greatly exposed to this poisonous night air, if the moon did not strike them, (as they supposed), the sun very likely would. Persons exposed to malaria at night, have awaked in the morning palzied, the muscles on the side exposed to the dews being paralyzed. A circumstance like this occurred to myself once, by sleeping between two open windows, as I slept directly in front, and near the window where a current of night air passed over my body.

Now in this case, I believe the poison took effect through the skin. I have often noticed that after being exposed to night air in August and September, I felt the effect of the sun's rays more intensely than before. And this comes in consequence of a debilitated state of the nervous system, which is produced by the influence of this malarial poison. Such circumstances have often been noticed in India, where malarial diseases have prevailed from time immemorial.

What am I to understand, when medical men speak of humidity as a morbid agent. Do they mean the actual presence of water in the air, as from fogs, mist or rain, or the natural moisture of the air, or a certain noxious vapor, which is found only in certain places, and in very dry times, which gives to the air an increased specific gravity, settling on the low places, along the streams, passing up ravines and over the lowlands, impinging on certain localities, wherever the force and current of the wind sets. If this latter is what they mean, it might as well be called *malaria* at once, but if they mean the former, then we are at issue.

For the most sickly time generally happens in the driest of the year, subsiding soon after very heavy falls of rain, and the most healthy time is in the rainy season, in the first half of the year.

And it often happens that the most humid countries are very healthy, as Holland, and some other parts of Europe, and in some localities, where it never rains, malarial diseases are common, as in Egypt. And as you go from the great lakes on the north, towards the equator, the sensible humidity of the air lessens, but disease does not. In Madison county, New York, in 1836, from tables of the weather it is noted: "Fine or clear 75 days, cloudy, with sometimes fog or mist 146 days, rained or snowed on 144 days," (365). In Saline county, Missouri, in 1845, from tables: "Fine or clear 170 days, cloudy with sometimes fog or mist 113 days, rained or snowed on 82 days," (365).

In Mississippi, in 1839, not from tables, but from an observer who occasionally noted down, for the accuracy of which I cannot vouch, yet

I think it near the truth. Fine or clear 237 days, cloudy with some times fog or mist 75 days, rained or snowed on 53 days,—365.

It may be remarked that the most of the rain that falls in Mississippi, falls in the cold half of the year, which is not the case as you go north. Thus it will be seen, that as we approach the great lakes on the north, the sensible humidity of the air increases, until more than one-half of the year the air is loaded with aqueous spray, and yet this is a healthy country. In the southern country, the lumbermen will go into the cypress swamps, and work there for months, getting out timber, which they float out in the spring, for every spring a great part of these swamps are inundated, at which times these men work in the water for weeks, and this is done in the rainy season, the time of fogs, when these men are not only in the water for weeks, exposed to rain at the same time, but they often sleep in the open air; many times they will come out of the water with their clothes dripping, and lie down in a skiff, and sleep there all night, with nothing over them but a blanket, and enjoy the best of health all the time. But let them do this in August and September, when there has been no rain for months, when the earth is parched with drought, and the ground dried and cracked open, and there is very few of them that would ever live to get away.

When atmospheric vicissitudes produce primary disease, it is never characterized by that peculiar type and grade, which is common to malarial diseases. A man is exposed in a malarial district, although he does not immediately fall a victim to its influence, yet its effect is no less certain, unless it is counteracted; which effect will become manifest, sooner or later, whenever circumstances favor its development. For malaria does not always take effect suddenly, but debilitates and enervates the system, from which the individual may not recover for some time after the poison ceases to be applied. Under these circumstances, although he may have gone far away from this baneful influence and even into another country, where these diseases are not endemic, yet his nerves are unstrung by its former influence, which renders the nervous system incapable of resisting external impressions, when by the application of some secondary cause, as cold, over-exercise, or the sun's rays, a disease is developed, malarial in all its features. For instance, I left New Orleans on the first of June, in tolerable health, except a little bodily depression, and went to the northern part of New York, via Mackinaw Straits. At the place where I stopped, intermittents were never known, nor a fever of that grade. Nearly two months after leaving that country, and while in New York, after exposure to over-exercise and cold, I took a fever precisely in character and type like the prevailing fevers of the south-west, and throughout its entire course manifesting the same symptoms.

An acquaintance of mine spent two years in a malarial district, in which time he had ague once, after which he returned to this same place in New York, in good health as reported; after being there six months he had a severe attack of ague, and suffered five paroxysms, two of which were quite severe, and this occurred in the month of March, on a high hilly country, where an ague was never known to originate; I have many other cases on my note book, but these will suffice.

Now here are cases, where the seeds of disease had long been sown, lying dormant as it were in the system, yet it failed not to produce a disease of its own kind. Thus we find, that when this poison takes effect on the human constitution, however varied the condition or circumstances of the patient may be, it is always followed by the same train of morbid symptoms, and whenever we find these symptoms to arise in, or follow disease, we will also find by a careful examination of the case, that malaria has produced it.

Dr. G. says that "the most sickly time occurs, when the wind sets long from the north-east." I have often noticed that to be the case in the south, but in the latitude of Missouri, a dead east wind is most apt to bring sickness and blight. When the wind sets long from an eastern direction, the fruit trees being in blossom, the fruit is often blasted, and the same happens to wheat, when the wheat is in blossom, the weather being warm, with a protracted east wind, the wheat is often blasted, or much injured, which are circumstances often noticed by farmers.

But this wind passing over a vast extent of country, whose mean temperature being generally about the same, not too hot, nor too cold for the generation of malaria, not only facilitates the extrication of the poison, but takes it up with avidity, bearing it along in its course, and this wind having less velocity than any other, becomes capable of holding suspended a greater amount of foreign substance ; hence when this wind blows long at certain seasons of the year, it is very apt to be followed by sickness, mildew and blight.

Art. XII.—*Some Remarks on the Treatment of Lying-in Women.*—By Ja. C. Bliss, M. D., of New-York.

Temperature of the Apartment.—Females, according to my observation, suffer more from over-heated and improperly-ventilated apartments than from any, and perhaps, all other causes combined. At an early period of my professional life, I was led to notice the injurious effects of too much heat and confined air in the Lying-in apartment, while resident Surgeon of the New York Hospital. At that time, there was a ward appropriated to this class of patients, and in cold weather it was heated by a metal stove, and it so happened, that almost every patient, whose bed was near it, was affected with febrile paroxysms, inflammation of the mammæ, bronchitis, or some other difficulty, which made recovery slow and uncertain, while those who were placed in a remote part of the ward rarely suffered from any of these affections, and got up much sooner from their confinement. Since that time, I may remark, that I have hardly known an instance where the bed of the patient was near the fire place, or where the apartment was kept too much heated and ill-ventilated that the patient has had a good recovery, and I now regard it almost a matter of certainty, that if I can not have the control in these matters, my patient will as a consequence, suffer more or less seriously. My experience has been so uniform on this subject that ventilation and a proper regulation of the temperature of the Lying-in room claims my earliest and constant attention.

A case, illustrative of what is here insisted upon may with propriety be cited. Some time since I attended the wife of a clergyman, in the winter season. Her apartment was heated by an anthracite coal stove. After she got to bed, I directed the stove to be removed, and the fire to be made in an open fire-place. The next day on making my visit, I found my directions had not been complied with, and that the air of the room was confined and unduly heated. I renewed my directions to have the stove taken away, and stated that if it was suffered to remain I had little doubt the patient would suffer serious consequences from it. The following day I found the stove still in operation,—my patient with a flushed face somewhat excited and with a heated skin. I remonstrated with the husband and nurse for disregarding my injunctions, and insisted upon the immediate removal of the fire as essential to the safety of my patient. Some neutral salts were directed and I left her. The following night I was called out of bed by her husband, with an urgent request that I would hurry to her, as he believed her to be dying, and feared we should not find her living when we reached her residence. On entering her apartment, I found her laboring under an attack of peritonitis of most intense character. The pain so excessive as to occasion constant shrieks,—the abdomen tumid and extremely tender to the touch, with a highly excited state of the vascular system. She had been permitted to suffer under the disease for several hours, by a stupid nurse, and her situation was unknown to her husband till he was aroused from his slumbers in a remote part of the house by her agonizing cries. The disease was so violent that although the patient was a young woman of vigorous constitution, there was too much reason to fear that the apprehensions of her husband would be speedily realized, and that she would sink under the force of disease. She was, however, rescued from impending death by active remedies very promptly applied: the principal being copious blood-letting, which was resorted to twice in the course of two hours, and carried to the extent of producing syncope in both instances. At the time of this visit, notwithstanding my repeated warnings and predictions had been verified, I found the stove still in its place filled with anthracite coal, completely ignited and emitting its usual volume of heat. On inquiring the reason why my injunctions to have it removed had not been complied with, after insisting upon it for the third time, I was informed the husband and nurse had conferred together after my visits, and concluded to let it remain, as in their opinion the doctor had some unnecessary apprehensions from the heat, or some unreasonable prejudice, and thus the valuable life of the mother of a young family was near being sacrificed by the pertinacious obstinacy of those to whose care she was entrusted, in disregarding the advice which had been given them.

Rest and Exclusion of Company.—Lying-in women suffer often very much from not being kept in a tranquil and quiet state after confinement. The mind of a female after she gets to bed is generally in a more or less excited state, and the system is exceedingly irritable.—The happy state of mind which they experience after being safely delivered, frequently inclines them to see and converse with their friends, and they can scarcely persuade themselves after being relieved from their sufferings and when they feel perfectly well, that they can be injured by so slight a cause. Their friends too can hardly realize when they find them cheerful, keenly enjoying company and conversation, that such interviews can be followed by any bad consequences, and they, as well as the patient, are disposed frequently to disregard the directions given them on this point. I have at this time a patient who has been suffering for two or three days under an attack of fever, induced from the confusion and noise of having her children in her apartment, and seeing two or three visitors the fifth day after confinement.

The nervous system in these circumstances is always in an exceedingly susceptible state, and disposed to receive strong impressions from slight causes. The early admission of company was in one instance in my practice, evidently the cause of puerperal mania, and which would probably have been prevented by quiet and repose. A most melancholy instance occurred with me some years since in a lady after her eleventh confinement. She was of a peculiarly susceptible constitution, and had before suffered after her confinement when subjected to disturbance of any kind. She was going on very well after her confinement till the 10th day, when a wedding of a relative took place in her house. The day previous to its occurrence I visited her, at which time she told me she exceedingly dreaded the occurrence, and referred to an incident of the same kind, which took place under similar circumstances, and said that at that time she was almost killed by the confusion it occasioned. I advised her to keep her room closed, and herself secluded from the company, and in that way prevent any injurious consequences. This advice could not be wholly complied with, and she became very much affected after the performance of the marriage ceremony, by taking leave of her friend to whom she was very much attached. She sat, however, for some time afterwards in her chair and employed herself in preparing wedding cake for distribution. She then stated to her nurse that she felt exhausted and would lie down. She was assisted to prepare her dress for the purpose, and reclined on her bed. In a moment after, the nurse observed her to rise from her pillow and throw herself forward, and then fall back on her pillow and expire. This sudden and unexpected termination of the life of a most estimable woman could only be accounted for, from the shock which her nervous system had received from the disturbance and confusion to which she had been subjected.

The early exhibition of Purgatives after Confinement.—With many labor is ushered in or preceded by a loose state of the bowels, and it usually happens that they are relieved in the progress of labor. This seems to be a wise provision of nature to facilitate the process of parturition and prevent any evil consequence after its completion, by the accumulation of feculent matter in the lower bowels. But notwithstanding this, it is the uniform practice of some, to exhibit an active purgative to a patient within twenty-four hours after delivery. The effect of this is, to disturb and irritate the system, at the very time when perfect quiet and rest are most needed, and in this way early recovery is retarded, and in some instances disease is kindled up, which would not have occurred, if it had not been for such improper interference. There seems to be an impression on the minds of some, that in child-bearing the patient is in a state of disease, which is to be combated by active antiphlogistic remedies. But this process is a natural one, and art should only be called upon to aid nature in her work where her powers are inadequate.

Where there are not particular reasons for the early exhibition of purgative medicines, they should be deferred till the patient has in a measure recovered from the fatigue, exhaustion, and irritation incident to labor, or till the excitement induced by the secretion of the milk appears. Agreeable to the teachings I had received, I was accustomed in the early part of my professional life, to exhibit an active cathartic soon after my patient was delivered. Experience taught me, that this practice was frequently followed by unpleasant consequences, and for some years past, I have in some instances omitted them altogether, and if necessary to relieve the bowels, have directed injections for this purpose, rather than disturbing my patient with purgatives. When I have judged it expedient to give purgative medicine, I have preferred not giving it till the third or fourth day after confinement. In choosing my remedy, I have also been in the habit of prescribing laxative doses rather than those of a more active character, to avoid exciting too much the bowels of my patient. Small doses of castor-oil, the eccoprotic mixture, or some mild pills, have usually been employed.

The circumstances under which it may be proper to give purgative medicines early, are, when the after-pains are protracted and severe, and do not readily yield to warm tea, an injection or an anodyne; under these circumstances the operation of a purgative frequently puts an end to them: generally by expelling clods, which may have formed and been retained in the uterus. It may be best, also, in some instances when the bowels have been constipated before labor, and fœcal matter accumulated, which, if retained, might be followed by disease. They may also be proper, when there is febrile excitement after delivery, to give purgative medicine occasionally, if injections and rest should be insufficient to overcome it.

Diet of Lying-in Women.—Most women suffer more or less from indigestion during gestation. This is particularly the case with females who, from their circumstances in life, have the means of indulgence. Their habits are peculiarly unfavorable to health; especially is this the case with the wealthy. They suffer greatly from the want of proper exercise in the open air and those active employments, which contribute to the healthful performance of the functions of the body. Another fruitful source of disease among this class of women, is the improper aliment, in the use of which they indulge—such as tea and coffee, pastry, confectionery, the various forms of hot or fresh bread-stuffs, and compound and high seasoned viands, the dissipation of late-hour entertainments, irregular sleep, the excitement of fashionable life, and inattention to the regular functions of the body, which is very common among young females. Another source of mischief, which is too often overlooked, is the influence the light literature and works of fiction with which the community is flooded, is exerting not only on the moral susceptibilities, but also on the bodily health, through the medium of the nervous system, over which the operations of the mind exert such a controlling influence. All these causes exert a most disastrous influence on our young females, in disqualifying them for the duties of life, and impairing or destroying their capabilities for the office of wives and mothers. The consequence of all this is, that most of our women who are in easy circumstances in life, when they come to the period of confinement, are enfeebled with derangement of the digestive functions, and morbid irritability of the nervous system. It is very common to put such patients on a rigid diet of gruels, teas, panada and other slops, and exhibit at the same time active purgative medicine. The patient is kept on this fluid spare diet, with the view of preventing febrile or inflammatory affections, and also with the intention of promoting the lacteal secretion. This course is not unfrequently continued for two or three weeks, till the patient is very much reduced in strength, the digestive powers much impaired, and the nervous system greatly deranged. It is not unusual under these circumstances for the mouth to become sore, and the irritation to extend to the mucous membrane of the stomach and bowels, producing obstinate diarrhœa, which cannot be controlled till the patient ceases nursing and the whole course of regimen is changed. Another evil which not unfrequently grows out of this injudicious treatment is, that latent phthisis in those predisposed to it, is suddenly developed and the young mother is hurried to an untimely grave. Excessive flow of milk is another consequence resulting from the patient being kept on an improper diet, and which frequently keeps her extremely weak and lays the foundation of serious disease. The least evil that grows out of the practice is, that the patient is kept in a miserable state of debility during the period of lactation, and the child half nourished, is feeble and wretched, and frequently becomes the early victim of disease.

When the patient has stomach-difficulty, or is disposed to be affected with indigestion, fluid nourishment should be avoided from the beginning, and the patient directed to use solid food, which is not of a stimulating kind, as bread, crackers, rice, fresh eggs, oysters, &c., and when these articles, from the impaired state of the stomach, will not digest, she should be allowed animal food at once, in moderate quantities, and when the lacteal secretion is fully established, and the excitement consequent upon it passed off, the diet should be generous, with a full proportion of animal food, and when it can be borne, malt liquor or small potations of brandy with water. In case the secretion of milk is excessive, the patient should be restricted in the use of fluids, and the thirst which occurs in such cases, should be allayed by washing the mouth and throat frequently with cold water.

This course of regimen, if commenced early, will generally control the lacteal secretion so as to prevent evil consequences from being in excess, and it will also generally prevent sore-mouth occurring.

When this latter difficulty does appear, it should claim early attention. The patient should be directed to take as food broiled or roasted beef or mutton, venison and game, with the exception of water-fowl, stale bread or crackers, rice and potatoes, where they agree, avoiding all vegetables which are not of easy digestion, tea and coffee, unless in very small quantities. This diet should be insisted upon, even when mastication of solids occasions pain. The patient should be directed the use of malt liquor, unless diarrhœa exists, in which case, a small quantity of brandy should be substituted. The nitric acid, in small doses, is generally a very useful remedy, a drachm to ℥ xxiv. of water. A tablespoonful to be taken four or five times a day before eating. Quinine also and an infusion of simple bitters, will generally have a good effect. Chamomile, quassia, or wormwood tea, may very properly be substituted for other drinks between meals. They have a good effect in restoring the tone of the stomach, and the patient is not liable to use them to excess as other drinks. Where constipation occurs, the bowels should be kept open with some laxative pill, or with the eccoprotic mixture in small doses. If diarrhœa occurs, it should be restrained by opiates and the cretaceous mixture with mild astringents. If these remedies, and the diet above pointed out fail of arresting the difficulty, the patient must cease nursing before it goes to the extent of endangering her recovery. The avoidance of fluids should be strongly insisted upon where there is sore mouth, and in case of excessive lactation, or all our remedies will prove ineffectual. This is the more important, as the thirst is frequently as great as in diabetes, and very difficult to allay.

Local applications to the mouth rarely do good, unless the condition of the digestive organs is first improved. The most useful remedies are the solutions of sub-muriate of soda, sulphate of copper, and the nitrate of silver.

Rising too soon from Bed after Confinement.—The uterus and its appendages are always, after confinement, in a state which disposes them readily to disease, and perhaps, no one thing so frequently gives rise to morbid affections of these parts, as the patient being permitted to get on her feet, and walking too soon after delivery. The congested and sub-acute inflammation sometimes affecting the muscular tissue of the uterus, at other times the mucous membrane of the organ, and of the vagina ; those painful affections denominated hysteralgia, which several diseases, in popular language, are known under the general term of falling of the womb, are commonly the consequence of this injudicious management, and months and years of suffering are entailed upon the patient by her own folly or that of her attendants. As a general rule, it is better to keep the patient in a reclining posture for ten days or a fortnight after the birth of the child. At the end of which period she should be permitted to sit in a chair, and at the end of three weeks she should be allowed to be on her feet for a short time. If there is a tendency to disease, or if it has previously existed the patient should be kept in a horizontal position till the expiration of a month or six weeks.

PART SECOND.

Critical Analysis.

Art. XIII.—*Observations on Aneurism and its Treatment by Compression.*—By O'Bryen Bellingham, M. D., Edin., Professor in the School of the Royal College of Surgeons in Ireland, 12mo., pp. 181, London, 1847.

Our thanks are due to the distinguished author of this very able and comprehensive treatise on the treatment of aneurismal diseases by compression, for sending us an early copy, and we beg to assure him that we have read it with great interest and satisfaction. We present a brief analysis.

The treatment of aneurism by compression is not of modern origin. Its early history, indeed, is intimately mixed up and associated with that of the treatment of wounds of arteries. In some cases the pressure was applied to the aneurismal sac, and the artery leading to it; sometimes to the capillary side of the tumor, and in some instances the entire limb was at the same time compressed. The pressure was effected, in some cases, by compresses and tight bandages; in others, the compresses were soaked in styptics, and plasters of various kinds were applied; or the compression was maintained by the use of instruments or apparatus of various forms and construction.

These several methods may be comprised under the following heads:

"1. Where the pressure was applied directly upon the aneurismal sac.

"2. Where the pressure was applied to the aneurismal sac, and the entire limb was at the same time compressed.

"3. Where the compression was applied to the artery between the aneurismal sac and the heart.

"4. Where the pressure was applied to both the aneurismal sac and the artery upon the cardiac side.

"5. Where the pressure was applied to the distal or capillary side of the aneurismal sac.

"6. Where the aneurismal sac was laid open, and the pressure was applied upon the ruptured or wounded vessel.

"7. Where the artery above the aneurism was laid bare, and the pressure was applied directly upon it."

It appears that compression, when first employed, was always applied immediately upon the aneurismal sac, and undoubtedly originated in the use of compresses, bandages, and similar appliances in cases of accidental wounds of arteries. The first form of aneurism in which compression was employed was traumatic tetanus, as that caused by the accidental wound of an artery in venesection. This was a very frequent accident in former times, as in the 16th century surgeons were compelled by law, in France, to pension those whose arms they had injured in bleeding. We find John Bell using the following language also, in his "Principles of Surgery:" "Our Legislature does not prevent the most ignorant from meddling with a profession which should be sacred as the priesthood. Masons, butchers, gardeners, cowherds, are among the chief phlebotomists in this country; and it is to them we are indebted for the various specimens of aneurism." If we consult the older writers in respect to the treatment of wounds of the brachial artery in venesection, we find them recommending compresses, bandages, styptics, plasters, &c., and copious directions are laid down as to the mode of applying them. According to Sprengle, Jean de Vigo, a physician of Genoa, was the first to conceive the idea of curing aneurisms by compression. He used compresses of charpie wet with styptic solutions, which were applied to the aneurismal tumor, and maintained by bandages rolled tightly round the limb. Galen, however, speaks of having cured an aneurism at the bend of the arm by means of sponge and bandages, and there is good reason for believing that this mode of treatment was successfully employed at a still earlier period.

Compression was, however, limited to traumatic aneurism as a mode of cure, until the end of the 17th century; and it seems to have been employed, moreover, only in cases where the tumor was small, the aneurism recent, its contents fluid, the skin uninflamed, and the disease located in the brachial artery, or some of its branches. The pressure was always applied directly upon the aneurismal sac, and the arm was firmly bandaged; styptics and plasters were generally used at the same time; the arm was confined to the side, and the patient was kept upon a cooling regimen, and occasionally bled. Surgeons formerly supposed that the pressure not only prevented the further dilatation of the artery, but pressed the blood contained in the sac again into the vessels; that the edges of the wounded artery were also brought into apposition, and adhesion took place; so that the channel of the artery was preserved, and on the discontinuance of the compression, the blood passed down the artery as before the injury. The tourniquet was invented about the beginning of the 18th century, and since that period many new forms of compressing instruments have been introduced, an account of several of which was given in the last (May) No. of our Journal, pp. 385–6. Besides these, various forms of compressing bandages were introduced, and all were employed as well in recent wounds of arteries as after the formation of an aneurism; but down to the middle of the 18th century, this mode of treatment was limited to the brachial artery and its branches, or to small arteries in other situations, and to cases where the aneurism was small and of recent occurrence. If the tumor was large, the sac was laid open through its entire length, the coagula and fluid blood removed, the artery tied above and below the opening, the wound filled with charpie, and bandages and compresses applied.

The treatment by compression was extended to popliteal aneurism, by Heister, who cured an aneurism of the femoral artery, produced by a punctured wound, by filling the wound with charpie, laying a number of thick compresses over it, placing another compress along the course of the femoral artery, and then bandaging the whole limb tightly; an oval metallic plate being applied over the compresses and retained for two months.

Guattani, an Italian surgeon, was the first (about the middle of the last century) who succeeded in the attempt to cure popliteal aneurism by compression; and he was induced to revert to it, partly from the success which attended the employment of pressure in aneurism at the bend of the arm, following venesection; and partly, from his having witnessed a spontaneous cure in three cases of popliteal aneurism; but principally, from having witnessed the great fatality of aneurism of this vessel, and the unfavorable results of every operation for its relief. In the cases treated by Guattani, the chief pressure was made immediately upon the aneurismal sac, and the entire limb was at the same time compressed by bandages, rollers, &c. The patient was frequently bled, placed upon low diet, and confined to bed during its employment. In short, it was only an adaptation of that in general use in brachial aneurism, combined with the medical treatment proposed by Valsalva and Albertini for internal aneurism. He supposed that the pressure diminished the rapid motion of the blood in the vessel; checked the further increase of the aneurismal tumor, and caused the gradual resolution of the contents of the sac into serum. Thus, as the tumor subsided, the ruptured artery was healed, and became fit to convey the blood to the leg and foot.

The objections to this mode of treatment are sufficiently obvious. The process was very tedious and painful, and the result uncertain. The pressure upon the aneurismal sac tended to cause its rupture, and to convert a circumscribed into a diffused aneurism; or to give rise to inflammation and suppuration in the sac, and perhaps occasion gangrene of the limb. These results often followed, but they were not much dreaded, inasmuch as where suppuration followed, the aneurism was sure to be cured, provided the patient had sufficient stamina to hold up under the tedious process. The chances of recovery were even greater than after the operative proceedings. The frequent occurrence of gangrene was owing to the compression and obliteration of the collateral vessels about the knee, to obliteration of the vein over the sac, and the pressure made upon the large nerves of the part.

This mode of treatment of aneurism, appears to have failed in more than half of the cases. When it failed, the disease seems always to have been the cause of the death of the patient, except in a few instances where the limb was amputated. When the treatment succeeded, the artery at the seat of the aneurism was undoubtedly obliterated, although the main object which the surgeons had in view in employing compression, was to avoid this very occurrence; supposing that the aneurismal sac was a bag distended with blood; that the pressure had the effect of squeezing its contents back into the artery, when the edges of the wounded or ruptured vessels came into contact, and adhered as in wounds of other parts; and that on the discontinuance of the compression the blood returned to its original channel, and the limb was nourished as before its employment.

John Hunter's first operation for popliteal aneurism took place (1785) only thirteen years after the first appearance of Guattani's treatise on this subject; but, in the mean time, several cases of cures by the former treatment were reported by different surgeons. The simplicity of Hunter's operation, the facility with which it was performed, and the success which attended it, when contrasted with the ancient method, led, in a great measure, to the discontinuance by British surgeons of compression in aneurism of the large arteries; and to the almost entire discontinuance of the mode in which it had previously been used. Pressure was no longer made upon the sac; when employed at all, it was applied upon the artery between the aneurism and the heart. Compression was, however, never entirely laid aside, as the Hunterian operation sometimes failed, and occasionally an aneurism was so situated that an operation was impracticable. The principle on which pressure was applied at this period, was to endeavor to excite inflammation of the coats of the artery, at the seat of its application, so that coagulating lymph might be thrown out, and adhesion of the coats taking place cause an obliteration of the artery. This pathology was established by the experiments of Mr. Freer of Birmingham in 1806, who recommended a trial of compression in all cases of aneurism which admit of its application; the pressure to be made upon *the sound side of the artery*, for the purpose of causing adhesion of the sides of the vessel. Cases of popliteal aneurism, successfully treated in this way, were reported by Pelletan in 1810, (*Clinique Chirurgicale*), by Dubois in the same year, (*Bull. de la Faculté de Medicine*), and Dupuytren in 1818. Similar cases may also be found in Boyer's Surgery, (1818).

Where this treatment was resorted to by British surgeons, the pain from continued pressure was so severe that the patients were unable to bear it, and it was therefore speedily discontinued. Dupuytren concluded, from his experiments and observations, that there are individuals who cannot bear compression, whilst there are others who support it without inconvenience, and that this is the only reason of the different results of compression as applied to the treatment of aneurism.

Compression, however, as a mode of treating aneurism never had many advocates in Great Britain. Dr. Colles, in his early lectures, recommended amputation, and after Hunter's operation was introduced the ligature was almost solely relied upon, and its superiority over every other kind of treatment was taught and enforced both by reasoning and example. Among the earliest recorded cases, are those of Mr. Todd, in the 3d Vol. Dublin Hospital Reports, 1822. The apparatus employed resembled a truss for femoral hernia, the spring of which was much stronger, and the pad longer, of a more oval form, and more firmly stuffed than in the truss. The pad was furnished with an inner plate of iron, which was connected with the outer iron plate by means of a hinge close to the junction of the outer plate with the spring; and a tourniquet screw, passing through this plate, had the effect, when turned, of making a greater or lesser degree of pressure with the pad on the part to which it was applied. The instrument was put on like a common truss, the pad being placed in the line of the crural artery, immediately below Poupart's ligament; and it was kept in its place by a strap which passed from the spring of the truss behind, and buttoned in front on the outer plate of the pad. This instrument seems to be that described and employed by Heister, Albers, and others.

In consequence of the frequent failure of the Hunterian operation, a modification of the treatment by pressure was introduced, which consisted in laying bare the artery, in the usual situation for the application of the ligature, and then applying an instrument for the purpose of exciting inflammation, by gradually pressing together the sides of the vessel, until the calibre was obliterated by the effusion of coagulating lymph. Indeed, in his earlier operations, Hunter used four ligatures, which were tied so slightly as only to compress the sides of the artery together; an effect very similar to that of employing pressure. Scarpa also operated in a similar manner, and maintained that the degree of pressure should be only such as to put and keep the two opposite sides of the artery in complete and firm contact. For this purpose he used two waxed tapes, each two lines in breadth, with a cylinder of linen placed lengthwise upon the part of the artery where the knot was made. Sometimes a piece of cork, or a piece of wood wrapped in lint, or a piece of bougie, of leather, or of agaric, were employed. The object in view was to *prevent* the division of the inner coats of the artery, and thus diminish the chances of secondary hemorrhage. These views led to the invention of instruments of different forms and shapes, by which the opposite sides of an artery could be pressed together, and retained in contact. It was supposed they would have some advantage over the ligature, because they could be tightened from time to time, as might be considered advisable, and they could be removed when the necessary degree of inflammation had been excited in the coats of the artery. For an account of several of these instruments, see vol. 8, N. York Jour. Med. (pp. 385, 6, 7, 8, 9.) Among the advocates of this plan of obliterating arteries, we find the names of Deschamps, Percy, Dubois, Assalini, Crampton, &c., several of whom were also inventors of instruments for the purpose. This mode of operating, however, has been nearly abandoned of late years, it not having been found to answer well in practice. The term *immediate compression* was applied to this mode of operating.

Compression has also been tried upon the *distal* or capillary side of the sac, where an aneurism has been seated too near the trunk to admit of ligature upon the artery leading to it. It was long since known that after the application of a ligature, the vessel was generally obliterated as high as the next collateral branch, and it was supposed that the same result would follow if a ligature was placed below the sac. In the few trials, however, which have been made of this operation, it has been found often to aggravate the symptoms, by causing the blood to be transmitted with greater force to the sac, in consequence of which the size of the aneurism increases, and its progress becomes more rapid. We have only space to refer to the works in which successful cases of aneurism treated by compression, have been reported. Provincial Medical Gaz. 1829. Guthrie on Aneurism, 1840. Lancet, vol. ii, 1831–2, case by Mr. Lynn. Dublin Med. Press, May 1843, 3 cases. Lancet, vol. ii, 1843. Dublin Quart. Jour. Med., Aug. 1846. Lancet, March 23, 1844. Dublin Med. Press, Aug. 1844. *Ibid.* Sept. 25, 1844. Lancet, vol. ii, 1844. Proceedings of Royal Medico-Chirurg. Soc. Lond., Jan. 14, 1845. Dublin Med. Press, Feb. 26, 1845. Dublin Quart. Journal, May, 1846. Dub. Med. Press, April 30, 1845. Dub. Quart. Jour., May, 1846. Dub. Hosp. Gazette, Oct. 15, 1845. Provin. Jour. 1845. Dublin Med. Press, Jan. 21, 1845. Med. Gaz., March 13, 1846. Lancet, May 2, 1846. *Ibid.* May 23, 1846. *Ibid.* 1846. Dub. Quart. Jour. Aug. 1846. Lancet, July 18, 1846. Med. Gaz. Oct. 3, 1846. Several original cases in Mr. Bellingham's work, pp. 81–2.

Certain chemical agents have recently been employed for the purpose of aiding in the coagulation of the blood contained in an aneurismal sac, among which heat and galvanism are the principal. The first has received but a partial trial; the latter has been used with very favorable results. We quote two cases, one successful the other not, the former by M. Petrequin, Surgeon to Hotel Dieu de Lyon, and the latter by Mr. Bellingham, which will show the mode of employing this agent.

"Case 1.—The aneurism was seated in the temporal artery, was as large as an almond, and had succeeded to an injury of the head.

"'On the 10th of September I passed (M. Petrequin says) two fine steel needles into the tumor, so that they crossed each other at right angles, I then placed them in communication with the poles of a galvanic pile. At the first contact, there was an electric shock, accompanied by sharp pain, which increased as the galvanic power was augmented, and became so severe with the fifteenth couple that the sitting was terminated. The action of the galvanism lasted from ten to twelve minutes, and the direction of the current was changed three times. During the operation the pulsations progressively diminished, and ceased entirely at the end, the aneurism being replaced by a solid tumor.'"

"Case 2.—The patient was admitted into hospital February 10th, 1846; compression was employed and continued until April 21, when the galvano-puncture was applied as follows:

"The patient being laid upon his face, a compressing instrument was applied upon the artery immediately above the popliteal space, and another below it, they were then tightened, the lower one first: an acupuncture needle coated with sealing wax, except at its point and haft, was then introduced into the centre of the sac from the inner side, a very small incision with the point of the lancet having been previously made; a second was then introduced from the outer side. The needles were now brought into connection with a Smee's battery of six pair of plates by Dr. Apjohn, Professor of Chemistry to the Royal College of Surgeons in Ireland, who kindly afforded his assistance. The moment the current was completed the patient made a sudden movement of the limb which displaced the compressing instruments; he said he thought some one had struck a violent blow upon his heel; the pain diminished, but every time the current was broken he appeared to suffer increase of pain. The application was continued for about fifteen minutes at intervals; the exact period during which the galvanic current was maintained was noted at the time by Mr. Tufnell, and is as follows:—

Minutes.	Seconds.
0	35
0	55
4	8
5	20
3	44
14	42

"But little effect was produced upon the aneurismal tumor; the patient was in a state of great alarm during its application, and he complained afterwards of a sensation of numbness in the calf of the leg and heel, which continued until the next day.

"As the pulsation continued, the compressing instruments were reapplied upon the femoral artery, but seven days afterwards, before a second application of galvano-puncture was had recourse to, the patient was attacked with erysipelas commencing in the middle of the thigh, where the pad of the compressing instrument rested, and his constitution being bad, he sank, thirteen days after the operation.

"On a post-mortem examination it was found that, notwithstanding every care had been taken to avoid it, by introducing the needles upon the inner and outer side of the sac, a portion of the sciatic nerve had been pierced by one acupuncture needle, which accounted for the severe pain in the heel experienced by the patient, and for the numbness which continued afterwards."

In the *Dublin Quarterly Journal of Medicine* for November, Mr. Hamilton has related a case of carotid aneurism, in which he employed the galvano-puncture with the following effects :

"Case 1.—The patient, aged 43, an invalid soldier of broken down constitution, was admitted into the Richmond Hospital, March 26th, 1816, laboring under carotid aneurism on the left side, in addition to other complaints. 'The tumor was about the size of a hen's egg, its centre was on a level with the cricoid cartilage, the sterno-mastoid muscle was stretched over it, its pulsation was strong, there was no bruit de soufflet.' Not being considered a case for operation, and compression being out of the question, the galvano-puncture was employed as follows :

"May 15th. 'A thin gold needle was passed into the sac on the outside until it had penetrated to about an inch, the same was done on the inside, the needles could be made to touch in the centre, and were isolated, except at the point by shellac. A Smee's battery of twelve zinc and silver plates was used, which was regulated by Mr. Fagan.' 'The action was given very gradually by, at first, only immersing the plates to two or three inches. When the whole force of the hattery was used it only caused moderate pain, and produced slight contraction of the muscles.' 'At the end of fifteen minutes the aneurism appeared to beat with less force. After this the pulsation became evidently less, the tumor firmer and larger, and he began to complain of uneasy weighty sensations, and very severe pain, which he compared to his throat being held fast by the teeth of a dog. He said he suffered much from pain in the left side of the forehead ; the sensations in the tumor were very distressing, and those in the head, from their violence, assumed rather an alarming character ; but the most serious symptom was the great increase of the swelling : this seemed the chief cause of the pain and the tight feel in the throat.

"'At the end of twenty-five minutes complete coagulation had taken place in the aneurism, which felt solid, and pulsation was imperceptible : for these reasons the galvanism was discontinued. The integuments round the positive needle were observed to vesicate and to turn black for the size of a spangle ; on withdrawing it, there was a slight flow of blood, but none from the puncture of the negative needle.

"'So far therefore as the solidifying of the blood in the aneurism, the operation had succeeded, but not without considerable grounds of uneasiness. The unpleasant feel in the head continued, with the pain over the left eyebrow ; the pupil was observed to be contracted, and there was loss of sight in the left eye. He complained much of the tightness in his throat, and the tumor was three or four times larger than previous to the application of the galvanism.'

"After the 17th of the month pulsation returned in the tumor. The patient died of the disease for which he had been admitted on the 8th of June, a little more than three weeks after the application, and a few days before death the pulsation in the aneurism ceased.

"On examination, the aneurism was found to spring from the anterior part of the common carotid ; 'below the aneurism the trunk of the carotid was sound, but both external and internal carotids were much reduced in size, and so much obstructed that a probe could not be passed through them into the aneurism.'

"A section of the aneurism showed the contents to be solid, the centre occupied by clotted blood of the color and consistence of black currant jelly; from a quarter to half an inch from the margin the layers were of a pale red color, and had a fibrous arrangement, exactly resembling muscle."

With respect to the mode in which galvanism acts in causing the formation of a coagulum from blood, the following remarks of Dr. Apjohn, of Dublin, are worthy of notice:

> "When the circuit of a battery of moderate strength is completed through the serum of blood removed from the body, its albumen is coagulated at the positive pole; and there can be little doubt that if the blood contained in an aneurismal sac were subjected to the same influence its serum would undergo a similar change. As to the cause of the coagulation, it appears to be due to the decomposition, or, as Mr. Farraday terms it, the *electrolysis* of the salts of the blood, and the action on the serum of the acids developed at the anode or positive pole. The coagulation of the albumen is not, therefore, a direct consequence of the galvanic current, but arises from the analytic action exercised by it upon the saline constituents of the blood.
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> "If the battery is very powerful, the effect upon the serum may extend throughout the entire of the space separating the poles. But even in such a case, the coagulation is not, I believe, due to any specific agency exerted by what is called the galvanic current, but to the elevated temperature produced along the line of its trajet."

Dr. Bellingham observes that,

> "The coagulum developed by the action of the galvanic current upon blood would, therefore, appear to consist of *albumen*, derived from the decomposition of its serum; such a coagulum will be necessarily loose and flocculent, and altogether different from that which forms in an aneurismal sac under ordinary circumstances.
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> "In order that the albumen of the serum of the blood contained in an aneurismal sac may be coagulated, it would seem to be essential that the blood should be retained in it for a sufficient length of time to be acted on by the galvanic current; consequently, compression ought to be made upon the artery above and below the sac during the operation; if this precaution is not taken, the blood will pass through the sac too rapidly to permit of its decomposition.
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> "It appears to me that a coagulum might be developed from another source, when a galvanic current is conducted along needles introduced into an aneurismal sac: thus after the decomposition of the serum contained in the sac, and the separation of its albumen from the other constituents, it is not unreasonable to suppose that the fibrine and red globules of the same portion of blood (being then in some measure set free) might form a distinct coagulum; but of this we have no proof; and such a result could hardly be expected unless the galvanic current had been maintained for a sufficient length of time to coagulate completely the albumen of the serum contained in the sac. Even under these circumstances the coagulum would be loose and soft, and have little analogy with the fibrinous layers found in aneurisms of some standing.
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> ### THEORY UPON WHICH THE GALVANO-PUNCTURE EFFECTS THE CURE OF ANEURISM.
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> "From what precedes, it would, therefore, appear to be improbable that a coagulum, sufficiently large to fill the sac of an aneurism, and sufficiently firm to resist the current of blood in the main artery of a limb, can be developed under any circumstances by the agency of the galvanic current; more particularly if compression upon the artery above and below the sac is not employed at the same time. How, then, it may be asked, has it happened that in some of the cases which have been recorded, the pulsation in the aneurism ceased either immediately, or soon after its application, although compression was not always used? It appears to me that there are two distinct modes in which such a result may be brought about.
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> "According to the first, compression upon the artery above and below the

sac is indispensable during the operation; when the galvanic current is completed, the albumen of the serum of the blood contained in the aneurismal sac is gradually coagulated, and on the discontinuance of the compression, the coagulum thus formed is forced out of the sac, and carried with the blood into the artery at the distal side of the sac, the channel of which may be thus blocked up. If a distinct coagulum of the fibrine and red globules forms at the same time, (in the way to which I have alluded), it will render the chances of the artery below the sac being obstructed, still more probable. It is easy to understand how a comparatively small and loose coagulum could produce this effect; and it is clear that if the artery at the distal side of an aneurismal sac were thus closed up, the pulsation of the aneurism might cease at once, or the cure of the disease would be readily accomplished by moderate pressure afterwards upon the artery at its cardiac side.

"The other mode in which the galvano-puncture may cause the cessation of pulsation in an aneurism, and that, perhaps, which is the most frequent, is by exciting *inflammation* in the sac or parts about it. Inflammation would be soon followed by swelling from effusion of serum or lymph; the artery supplying the sac or leading from it would be thus compressed, and its pulsation checked or diminished according to circumstances. This result obviously may follow, whether compression has been employed or not; and it is more likely to happen when a powerful battery has been used, than one of moderate strength. That it has already occurred, is evident from the details of one of M. Petrequin's cases, in which suppuration of the sac followed the application.

"If the foregoing views are correct, a galvanic battery of moderate strength is to be preferred to a more powerful one, as being less likely to occasion inflammation; and the application ought always to be combined with compression upon the artery above and below the sac.

"On the whole it appears to me that much can never be expected from galvano-puncture as an agent in the cure of aneurism: it is doubtful if the current of a battery of moderate strength, however long continued, can develop a coagulum sufficiently firm to produce even the effects I have mentioned; and the employment of a powerful battery is not without risk if the aneurismal sac is of considerable size, or springs from a large artery. In addition, it is difficult to isolate completely the shaft of the acupuncture needles; the substance used for this purpose is either detached in the act of introducing them, or it is softened when the galvanic current is completed: hence the tissues through which the needles pass are acted on, and the strength of the current is necessarily wasted."

Mr. Wardrop has suggested the injection of a chemical fluid, as dilute acetic acid, into the sac of an aneurism, but we are not aware that it has ever been carried into effect.

Dr. Bellingham devotes several pages to an exposition of the theory upon which compression was supposed to effect the cure of aneurism, from the period of the introduction of the Hunterian operation, down to the year 1843, and of the opinions of writers on aneurism during that period, bearing upon this mode of treatment. He makes it appear very conclusively that the object of surgeons in resorting to compression in these cases, was to excite such a degree of inflammation in the coats of the artery, at the point compressed, as to cause such an effusion of lymph as would lead to an obliteration of the cavity; or to excite inflammation in the tissues surrounding the artery and between its coats, as to compress its tube to such degree as to render it impervious to the passage of blood. This required such a degree of pressure as to render the treatment not only tedious and painful in the highest degree, but extremely doubtful and uncertain. The cases published in 1843, (*Dub. Med. Press,*) by Mr. Cusack, Dr. Hutton and Dr. Bellingham, fully establish the important fact, that instead of employing such a degree of pressure as was formerly considered necessary, the least possible compression which may be sufficient to close the vessel should be used, and when this cannot be sustained, that it will prove of use to partially compress the artery, so as to lessen the impulse of the circulation. Mr. B. considers it fully proved that it is not all essential the circulation through the vessel leading to the aneurism should be completely checked, but rather the contrary; that it may, perhaps, be advantageous at first, for a short period, by which the collateral circulation will be more certainly established, but *that a partial current through an aneurismal sac will lead to the deposition of fibrine in its interior, and cause it within a few hours to be filled and obstructed, so as no longer to permit of the passage of blood through it;* that pressure so as altogether to obstruct the circulation in an artery, must necessarily be slower in curing an aneurism, as it must, in some measure, act by causing obliteration of the vessel at that part to which the pressure has been applied; whereas, *a partial current through the sac enables the fibrine to be readily entangled in the parietes of the sac in the first instance, and this goes on increasing until it becomes filled;* the collateral branches having been previously enlarged, the circulation is readily carried on in them. To Dr. Bellingham clearly belongs the credit, of first distinctly pointing out and elucidating these important facts and principles. The conclusions at which Dr. B. arrives in relation to the mode in which nature effects the cure of aneurism, are the following:

"1st. That nature herself sets up a process by which, under favorable circumstances, the cure of aneurism is effected.

"2nd. That the mode in which she effects this, always in internal aneurism, and frequently in external aneurism, is by the deposition of the fibrine from the blood in the sac of the aneurism, until it becomes filled.

"3rd. That the fibrine in such cases is deposited in regular concentric laminæ, the oldest or first formed next the sac, those most recently formed nearest the centre.

"4th. That a current of blood through the aneurismal sac is a necessary agent in bringing about this result.

"5th. That any obstruction to the current by which its velocity and amount are diminished, will accelerate the deposition of fibrine in the aneurismal sac.

"6th. That once this process has commenced, if the same agents continue in operation, it will go on until the sac becomes filled, and no longer permits of the entrance of blood."

Dr. B. shows that the mode in which pressure upon the artery at the cardiac side of the aneurism, effects the consolidation of an aneurism, and that by which nature effects this object are identical; in both cases the fibrine of the blood is gradually deposited in the sac, which continues until the sac becomes filled, and no longer permits the entrance of blood; and we need not add, that when the sac of an aneurism has been completely filled by fibrine, thus deposited, the disease is cured; it can neither increase in size nor can rupture take place; for the artery from which it springs, is obliterated. According to Dr. B., *a ligature at a distance from the sac effects the cure of aneurism* in the same way as compression—a feeble current of blood continues to pass through the sac after the operation, by the collateral branches, and fibrine is gradually deposited in the sac, by which it becomes obliterated, and not, as is often supposed, by the coagulation of blood.

With respect to the instrument employed for producing compression, the most important points are, that it should admit of being readily applied; that its principle should be so simple as to be easily understood by the patient; and that it should effect the object intended with as little inconvenience as possible to the patient—a *broad soft pad* will generally answer best; the counter-pressure, which is sometimes nearly as irksome as the direct pressure, ought to be distributed over as large a surface as possible. Dr. B. observes,

> "No matter upon what part of the limb the compression is made, or with what care the pressure is graduated, it becomes painful when constantly applied at the same part, and we are forced to relax it. This applies to every instrument which has been invented, and to every part upon which pressure can be made. We can, however, so manage the application as to maintain continued pressure for a considerable time, with comparatively little inconvenience to the patient, by a mode of using the compressing instruments to which I first called the attention of the profession—viz., by applying two or more instruments upon separate parts of the limb, which are alternately tightened and relaxed. Since the advantages of this mode of applying compression were pointed out, the plan has been extensively adopted, and it has been found to answer the purpose intended in every respect. Indeed, in several instances, owing to the extreme susceptibility to pain in the patient, a cure could hardly have been accomplished if it had been necessary to maintain the pressure constantly at the one point.
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> "In many of the cases in which compression has been employed, a bandage, rolled more or less tightly round the limb, has been used along with the compressing instruments. The advantages to be expected from this proceeding are not very apparent, while its disadvantages are sufficiently evident. I have already observed that the femoral vein, owing to its close connection with the artery, must be compressed together with it; it is obvious, therefore, that the venous blood must return in a great measure by the superficial veins; but if the current through these vessels is impeded or interrupted by a bandage or roller, congestion, œdema, and swelling of the limb can hardly fail to follow. There is one stage of aneurism, however, where a bandage may prove serviceable, (combined with a compress upon the aneurism), as where the sac has become partially filled with fibrine, indicated by its feeling more solid to the touch, and by its not increasing in size on the removal of the compressing instruments. In such cases a bandage and compress on the tumor, by pressing the sac against the artery which supplies it, or against the orifice by which it communicates with the artery, may diminish materially the stream of blood which enters the sac, and thus lead to the rapid deposition of fibrine."

With regard to the circumstances connected with the patient himself, our author has the following judicious remarks:

> "Although the result of compression will be influenced in some measure by the kind of instrument used, or by the manner in which it is applied, the state of health of the patient, his irritability or susceptibility of pain, and his intelligence and anxiety to co-operate in maintaining the pressure, will have still greater influence upon the rapidity or slowness with which a cure is brought about. Many patients laboring under popliteal or femoral aneurism are perfectly healthy in other respects, and the disease is altogether local; in others, on the contrary, the health is more or less deranged, the constitution is bad, the disease may be complicated with anæmia or with anasarca, the heart's action may be increased, or organic disease of the aorta or of the valves of the heart may be present. In the former case no medical treatment almost will be required beyond regulating the bowels, and venesection occasionally to a moderate amount. In the latter, we must of course,

at the same time, employ measures calculated to improve the general health; but to these I cannot more particularly allude here.

"It occasionally happens that the patient is so irritable or so susceptible of pain that he soon becomes dissatisfied; he will relax the instruments if not constantly watched, or he may even refuse to continue the compression. Others think so lightly of the disease that we cannot prevail on them to keep up the pressure. These are the kind of cases which particularly try the surgeon's patience; in a form of treatment which may require to be continued for many weeks, it is difficult to maintain a constant surveillance; once the patient has learned to regulate the apparatus, the success of the treatment depends more upon himself than upon the surgeon; and unless he aids and assists, our efforts will be almost in vain. The patient therefore ought to be encouraged to persevere by every means in our power; indeed, in general, he will soon discover that pressure upon the artery has the effect of relieving the pain from which he previously suffered in the affected limb: and after it has been employed for a time, he will find that he can maintain it for a longer period than he could at first.

"It more frequently happens, however, that the patient is made dissatisfied with the treatment, owing to an undue degree of pressure being made at first, and an unnecessary degree of pain occasioned thereby. This mistake was almost unavoidably made by those who supposed it necessary to interrupt completely the circulation in the artery at the part; or who fancied that they could bring about the coagulation of the contents of the sac, and accelerate the cure by using very strong pressure. The consequences were that the surface became excoriated, the lymphatic glands in the groin became painful, the limb swollen, benumbed, or œdematous, and the cure of the disease, instead of being accelerated, was protracted.

"It is not necessary to repeat what I have already said respecting the degree of pressure which should be used: it will be sufficient to observe, that the compression at first ought always to be light; after a time, when tolerance of the remedy becomes established, we may increase it to the degree we consider necessary; but it need never be so great as to interrupt completely the circulation in the artery at the point upon which it is applied. Although it is advisable, in the early stage of the treatment, to maintain a certain degree of pressure night and day, yet in most instances it will be found very difficult to do so; the patient cannot sleep unless the pressure is relaxed—if he does sleep, the pad becomes displaced, and the pressure is necessarily taken off the vessel. Indeed, if it were absolutely necessary to maintain permanent pressure in every instance until a cure was accomplished, we should seldom succeed; and that it is not necessary to do so, the details of the cases already given afford sufficient evidence, the pressure having been frequently intermitted and resumed according to circumstances. Once fibrine begins to be deposited in the sac the deposition will go on, although pressure may be very carelessly applied; and after a certain amount of fibrine has been deposited in the sac the instruments may be removed, and a cure will be accomplished nevertheless. Indeed, it would appear from two cases previously quoted, that the patient may in some measure resume his ordinary habits and commence exercising the limb without interfering with the progress of the cure."

In conclusion, we present Dr. B.'s summary of the advantages of compression over the ligature in the treatment of aneurism, and of the most material points bearing upon this mode of treatment.

"That compression effects the cure of aneurism by more *simple* means than the ligature is evidenced by the facts—1st, That the mode in which the consolidation of the aneurism is brought about by compression is exactly the same as that in which a natural or spontaneous cure occurs; and 2ndly, because when a cure is effected by compression, the vessel is obliterated merely at the site of the aneurism; whereas when a ligature is applied in the usual situation at some distance from the tumor, the artery is obliterated both at the seat of the ligature and at the seat of the aneurism. Hence it is easy to understand why, when secondary hemorrhage followed the operation, the application of a second ligature higher up so seldom succeeded; and we can hardly be surprised at gangrene attacking a limb, the main artery of which is obliterated at three different points.

"That compression effects the cure of aneurism by *safer* means than the ligature is also evident, because its employment can be intermitted and resumed according to circumstances; and because no ill consequences have hitherto resulted from its use. On the other hand, the ligature of a large artery is always a precarious operation; when it is once applied, we must await its separation before the patient can be considered out of danger; and when it fails, which frequently happens, the case almost always terminates unfavorably, not from the increase of the disease, but from the operation performed for its relief. The artery in which aneurism (after the aorta) is most frequent, is the popliteal, and the ligature of the femoral artery for popliteal aneurism is more frequently unsuccessful than that of any other artery of equal size. Mr. Benjamin Phillips collected fifty-nine cases from various sources in which this vessel had been tied, in thirty-nine of which it failed; and although (as Mr. Stokes observes) the accuracy of these statistics may be denied, 'yet every surgeon must allow that the deligation of a main artery for aneurism is an operation (notwithstanding the successful results some practitioners can boast of) attended with great risk.' On the other hand, I have given a list of twenty-seven cases of aneurism treated by compression of the femoral artery, in twenty-five of which it succeeded perfectly; of the other two, one died of erysipelas before the cure was completed; the other was operated on at the patient's urgent request, and recovered. A mode of treatment therefore which is exempt from all risk has many advantages on the score of humanity, which alone ought to constitute a strong argument in its favor.

"The treatment of aneurism by compression is *more certain* than that by the ligature. We have already seen that the operation by ligature, however carefully performed, is a precarious one, and that it frequently fails; that secondary hemorrhage from ulceration of the artery at the site of the ligature or phlebitis not unfrequently follow it; or that suppuration of the sac, hemorrhage from it, or gangrene of the extremity, may ensue. Now, none of these unfortunate results have ever attended the treatment by compression, nor are any of them ever likely to follow it; because, in the first place, no injury whatever is inflicted upon either the artery or vein at the site of the pressure; and secondly, because the aneurismal sac, and the part of the artery from which it springs, are gradually filled up by fibrine, separated from the blood and deposited in the same way as when nature cures internal aneurism.

"That a cure effected by compression is more likely to be *permanent* than when the ligature has been used, and that pulsation cannot return after the employment of compression, as sometimes has happened after the operation, might be inferred from the manner in which the cessation of pulsation is brought about; and it is proved by the pathological facts already adduced. In one instance, where the patient had been under treatment by compression, but died previous to the cessation of pulsation in the aneurism, the sac was found to be in a great measure filled up by fibrine, deposited in concentric laminæ. In another, where the patient had labored under popliteal and femoral aneurism in opposite limbs, and died some time after their cure by compression, the subsequent changes were shown; the contents of the sac had been absorbed, and the artery at the seat of the aneurism was converted into an impervious ligamentous band, proving that the cure had been permanent, and that it was physically impossible for an aneurism again to form at the part. A cure effected by the ligature can only be permanent when it causes the aneurismal sac to be filled up, and the artery to be obliterated at its seat, after the same manner as compression. If a loose coagulum of blood merely forms in the sac as the result of the ligature, there is danger either of the sac suppurating, (for the reasons already mentioned), or a secondary aneurism may form at the part; neither of which have ever occurred after the treatment by compression.

"When pulsation returned in an aneurism shortly after the operation, it was always a source of considerable anxiety to the surgeon; but if the principle upon which aneurism is cured had been understood, it need not have occasioned any; it merely indicated that a rather stronger current than usual passed through the sac, and that the process by which it was to be filled up was proceeding. When pulsation returned long after a supposed cure by operation; in other words, when a secondary aneurism formed at the part, it was naturally looked upon as a much more serious matter, indicating that the operation had failed; and amputation of the limb was supposed to be the sole resource. But if again the theory upon which aneurism is cured had been understood, surgeons would have known that the formation of a secondary aneurism indicated that the sac had *not* been obliterated by the ligature, that nature had now set up the process by which this would be accomplished, and that a little assistance from art only was required to secure its permanency.

"In addition, there are some other circumstances which tend to confirm what has been already said respecting the advantages of compression over the ligature. For instance, aneurism not unfrequently occurs in individuals in whom the coats of the artery leading to the sac are so much diseased, that the vessel, instead of taking on the adhesive inflammation after the application of the ligature, ulcerates, or the ligature cuts its way through, giving rise to secondary hemorrhage. The disease is also not uncommon in individuals laboring under valvular or other disease of the heart, in subjects of intemperate habits, or broken down constitution, or in cases of the aneurismal diathesis, and where more than one aneurism exists at the same time; cases in which the ligature is contra-indicated, and where the surgeon with great reluctance would perform any operation; whereas pressure may be applied under these circumstances with nearly the same prospect of success as where the patient is perfectly healthy.

"Again, aneurism occasionally occurs in individuals who have so much horror of a surgical operation that they cannot be induced to consent, although made aware of its absolute necessity and of the risk of delay. Such persons will gladly embrace any means by which they may be relieved from the necessity of undergoing an operation, and will cheerfully submit to any method of treatment which promises a chance of cure without it. Now, as the treatment of aneurism by compression involves no operation, patients laboring under this disease will probably make application at an earlier period, and for this reason will come under treatment at a more favorable period for effecting the cure than heretofore."

"1. The arteries to which compression is applicable being far more frequently the subject of aneurism than those to which it is inapplicable, compression is calculated to supersede the ligature in the great majority of cases.

"2. The cure of aneurism by compression upon the artery between the aneurismal sac and the heart, according to the rules laid down here, is accomplished by the gradual deposition of the fibrine of the blood in the sac, until both the latter and the artery at the part are completely filled. The process is in fact exactly similar to that by which nature effects a spontaneous cure of aneurism.

"3. Such an amount of pressure as would cause inflammation and adhesion between the opposite sides of the artery at the point compressed is never required.

"4. The pressure should not be so great as to interrupt the circulation in the artery at the point compressed; an essential agent in the cure being that a current of blood should pass through the sac.

"5. Compression by means of two or more instruments, one of which is alternately relaxed, is much more effectual than by any single instrument, and in many instances the pressure can be maintained by the patient himself.

"6. The treatment of aneurism by compression does not involve the slightest risk to the patient, and if persevered in cannot fail of effecting a cure.

"7. A cure of aneurism effected by compression, according to the rules laid down here, must necessarily be permanent; and in every case in which a cure has been accomplished, the patients have remained well subsequently.

"8. The femoral artery remains pervious after the cure at the point at which the pressure had been applied, and no morbid change of any kind is to be detected in either the artery or vein at the site of the compression.

"9. When a cure is effected by compression, the vessel is obliterated only at the seat of the aneurism, and the artery at this part is eventually converted into an impervious ligamentous band.

"10. Compression effects the cure of aneurism by more simple and safer means than the ligature, while it is applicable to a number of cases in which the operation is contra-indicated or inadmissible.

"11. Compression is not necessarily a more tedious or more painful method of treating aneurism than the ligature, while it is much more certain, more likely to be permanent, and is free from all danger.

"12. Compression, according to the rules laid down here, has little anology with the old method which went by this name; and in fact has no greater resemblance to it than tbe Hunterian operation had to the operation for aneurism which it superseded."

Art. XIV.—*A Treatise on the Practice of Medicine.* By George B. Wood, M.D., Professor of Materia Medica and Pharmacy in the University of Pennsylvania, etc. In two volumes, 8vo., pp. 798. 1840.

The able and learned author of this elaborate treatise, has undertaken, in the preface thereof, to offer some satisfactory reasons why he has ventured to add another to the many valuable works on the practice of medicine which already exist. He might well have spared himself this labor; the work itself is its best apologist, and the only one which the intelligent reader will require. To prepare a judicious treatise on the modern practice of medicine, undoubtedly requires qualifications of no ordinary kind. We can imagine no species of authorship, involving greater hazard, or more embarrassing difficulties—none in which failure would be more easy, or success hazardous, but honorable. Amidst the mazes of speculation, the accumulated rubbish of false facts, with which the science is lumbered, the vagaries of hypothesis, the false reasonings of medical theorists, it is indeed difficult to steer a safe and middle course; subjecting every thing to analysis, and weighing all in the balance of truth and impartiality; but he who, with sufficient stores of learning, both ancient and modern, shall do this, presenting in a clear and simple light what is actually known in relation to the nature, causes, pathology, seat, treatment, &c., of disease, will have presented to the world a useful work on the practice of medicine; and this may justly be claimed for the author of the present treatise.

We have, it is true, several works of a similar kind—some of them highly meritorious; as Eberle, Dunglison, Dickson, Hosack, Chapman; but none of them so complete as to render other attempts presumptuous, none so perfect as to leave nothing to supply. Besides, on a subject like that of medicine, it is highly desirable to have the views of as large a number of patient, observing, discriminating minds, as possible, in order that the student and reader may have the benefits resulting from a comparison of various and possibly diversified opinions. During the centuries when Galen was the only author whose works formed the library of the medical practitioner, if truth did not remain hidden, error was certainly consecrated and reverenced with equal devotion ; and it was not until by the diversified labors of numerous practical observers, that the science of medicine became firmly established on the sure foundation of the inductive philosophy; and so it is in our day. If medicine is advancing as a true and reliable science—a science which has a real and substantial foundation, it is through the varied, persevering and honest labors of many ardent minds, who are devoted to its cultivation ; and he who gives us a careful *resumé* of these labors, even if he adds nothing of his own to the original stock, performs a work which should entitle him to the gratitude and thanks of the entire profession. But Dr. Wood has done more than this. He has given us not only the views and opinions of the highest authorities in practical medicine, but he has subjected these to a careful analysis; he has weighed them in the balance of his own discriminating mind ; he has tried them in the crucible of a severe logic ; he has added to them the results of his own observation and reflection ; and then he has drawn such results and conclusions, as might be expected from a sound head and cool judgment. And this constitutes the highest kind of merit.

The author offers no apology for the want of time. He says, indeed, what will be sufficiently obvious to the reader, that he has devoted several years to the preparation of the work, and that there was no urgent necessity for its publication, which could justify him in giving it prematurely to the world. We like this acknowledgment, so different from what we often meet with, and hope the example of the author may prove contagious.

But it may be expected that we should give a more particular account of the manner in which Dr. Wood has executed his task, and of the views entertained by him relative to some of the most interesting points in pathology and therapeutics.

The first part of the first volume, consisting of 220 pages, is devoted to "General Pathology and Therapeutics ;" under which we have distinct sections devoted to the consideration of the following subjects :—1. "Constituent Forms of Disease." 2. "Disease of the Fluids." 3. "Disease of the Solids." 4. "Disease from mechanical and chemical causes." 5. "Disease from influences upon the vital properties." Under this head we have the following topics treated of: 1. "Irritation." 2. "Inflammation." 3. "Depression." 4. "Congestion." 5. "Fever." 6. "Peculiar Morbid Products," as 1. "Tuberculosis." 2. "Melanosis." 3. "Organized non-malignant Products." 4. "Carcinoma or Cancer." 5. "Parasitic animals." The second chapter is devoted to the "Causes of Disease," or "Etiology." Chap. III. treats of "Symptomatology," under which we have sections relating to, 1. "Symptoms or Signs of Disease." 2. "Course, Duration and Termination of Disease." 3. "Diagnosis." 4. "Prognosis." Chap. IV. treats of "General Therapeutics," with sections on "General Indications," and "General Therapeutic Processes."

Under "Part II.," we have the subject of "Special Pathology and Therapeutics" considered. The first class includes "General Diseases," so called ; among which are ranked the different forms of fever, and the exanthematous affections. Under the second class, we have

"Constitutional Diseases," including only "Rheumatism and Gout." The third class includes "Local Diseases," arranged after the usual anatomical manner, as 1. "Diseases of the Digestive System." 2. "Of the Absorbent System." 3. "Of the Respiratory System." 4. "Of the Circulatory System." 5. "Of the Secretory System." 6. "Of the Nervous System." Under these general divisions we have sub-sections devoted to the different branches of the subject, as e. g., under Diseases of the Circulatory System, we have "Diseases of the Heart;" of the "Arteries;" of the "Veins;" of the "Blood," considered separately, and so of the others.

As to the manner in which this extensive range of subjects is treated, we have been, we repeat, most favorably impressed. Not that we coincide in all the views laid down by Dr. Wood; this could hardly be expected; but we can cheerfully say, that we have scarcely ever met with such an extended treatise on practical medicine, in which we found so little in which we could not cordially acquiesce. The author has no hobbies, no crotchets, no favorite theories, which he feels bound to defend, at all hazards, whether facts be for or against him. He takes up a subject, turns it over carefully, looks at it on every side, weighs it deliberately, judges coolly, and then offers what he has to say, dispassionately, under the guidance of a matured judgment and strong common sense.

We could have, however, wished to have seen more frequent reference to the sources whence the author has drawn his materials; and this is almost the only point on which we feel disposed to venture a criticism.

To say that it is unnecessary to give credit for certain facts, and original suggestions, on the ground that they have been so long before the profession as to have become its "common property," will hardly satisfy those who have, with much labor and study, worked out these results. If the established facts and principles of medicine, are to be viewed as a sort of joint-stock property, the united inheritance of the profession, yet courtesy, at least, would seem to require that the valuable additions of the different contributors should be so marked and designated, that each benefactor may enjoy the credit of his discoveries, and each stock-holder know to whom he is indebted for the most valuable portions of the common stock. We had expected to find the honored names of Rush, and Hosack, Bailey, Edward Miller, E. H. Smith, Nathan Smith, Mitchell, Bard, and many other illustrious names among the living and the dead, in an *American* Practice of Medicine, and we earnestly hope that in the next edition, which we doubt not will be speedily demanded, the excellent author will supply these deficiencies, and do the most ample justice to all whose labors entitle them to an honorable distinction. An American Practice should be a *Pantheon*, in which the names and memories of our illustrious dead should be carefully enshrined.

Art. XV.—*Medical Botany, or Descriptions of the more important Plants used in Medicine, with their History, Properties, and Mode of Administration.* By R. E. Griffith, M. D., etc., with upwards of 300 illustrations. Philadelphia, Lea & Blanchard, 1847. 8vo. pp. 700.

The present work supplies a desideratum long felt by the profession in this country. The works of Bigelow and Barton, on the vegetable Materia Medica of the United States, have been out of print for many years, and while every other department of Medical Science has received its due share of cultivation, that of Medical Botany has languished and been almost entirely neglected. We hailed it as an auspicious omen, that at the recent National Medical Convention, a committee was appointed, consisting of a considerable number of the most distinguished members of the faculty, to take especial charge of this department, and make annual reports to the Association. We trust their labors will not be simply confined to compiling or gathering up what is already known, but according to the suggestions of the able mover of the resolution, Dr. Davis, push their investigations into the hidden virtues of plants hitherto unexamined. Popular opinions as to the properties of plants should not be wholly lost sight of, although they are, doubtless, in many cases, fallacious and unworthy of confidence. Vegetable analysis has also been strangely neglected among us, so that we can scarcely name a plant, the principles and constituents of which have been accurately ascertained. This whole department is almost a *terra incognita*, and furnishes a vast and most inviting field to those, whose previous studies and opportunities qualify them to enter upon its cultivation. We trust it will not be overlooked by the gentlemen, to whom the whole subject of the Indigenous Botany of the United States has been committed. We shall look to them for a new light in exploring this labyrinth.

Dr. Griffith has taken Lindley's "Medical Flora" and "Vegetable Kingdom" for his model, and has drawn very copiously, as he should, from these sources. The various articles of the Materia Medica have been arranged according to the natural orders, and the technical descriptions drawn up in accordance with the present improved state of botanical knowledge. The descriptions appear to have been carefully selected from the best authorities, while the whole is prefaced by a short introduction on the structure and composition of plants, a copious glossary of terms and a conspectus of the natural orders of plants, containing remedial substances. Although the work claims to be nothing more than a compilation, its merits are none the less on that account; indeed were it not such, it would be shorn of its principal excellences. To compile judiciously, requires equal learning, judgment, and taste, with original authorship; and, as a general rule, the utility of the former far outweighs that of the latter. It is so in the present instance. Dr. G. proves himself to be a thoroughly learned and accomplished botanist, an experienced physician, and a man whose mind has been thoroughly trained and disciplined by deep study and reflection. We congratulate him and the profession on the successful result of his labors. We hope the day is not distant when his "Medical Botany" will not only be a text book in every Medical School and

College in the Union, but find a place in the library of every private practitioner. The work is splendidly got up, both as respects paper, type, and illustrations; the wood-cuts are not inferior to those of the best English publications of a similar kind. It is enough to say that they are from the hand of Gilbert.

Art. XVI.—*The Medical Student's Vade-Mecum, or Manual of Examinations, upon Anatomy, Physiology, Chemistry, Materia Medica, Surgery, Obstetrics, Practice of Medicine, Poisons, &c. 2d Ed. Revised and greatly Enlarged.* By George Mendenhall, M. D., etc., Phila. Lindsay & Blackiston, 1847. 12mo., pp. 573.

Although we are not particularly partial to works of this description, which can at the least impart but the most superficial kind of knowledge, yet we do not deny that they may be of some benefit, if properly prepared, and judiciously adapted to the wants of the medical student. In Europe, where the system of *grinding* constitutes an important element in medical education, such works are deemed more necessary and important than with us, although we are rapidly assimilating in this respect with the profession across the Atlantic. From the examination we have made of the present publication, we think it one of the best of the kind with which we are acquainted, and we therefore recommend it to young practitioners and medical students, who wish to refresh their minds on many subjects of practical import, connected with the science.

Art. XVII.—*The Treatment of Insanity.*—By John M. Galt, M. D., Superintendent of the Eastern Lunatic Asylum of Virginia, at Williamsburgh. Harper & Brothers. 1846. 8vo., pp. 578.

By some inadvertence the above work has received no notice in our pages. We shall only be able, however, at present, to speak of it in very general terms, as its character forbids an extended analysis. The treatise seems to have grown out of the practice of the author, of transcribing every thing met with regarding the treatment of insanity, both in ancient and modern works. The list of authors quoted fills two pages; and besides these, we have an account of the Dietaries in eight British Asylums, the Report of the Commissioners in Lunacy, and a very full description of all the American Lunatic Asylums, the modes of treatment pursued in them, &c., &c. Altogether, we have here presented such a fund of information regarding the management of persons laboring under mental disease, as will be sought for in vain elsewhere, and such as justly entitles the work to a place in the library, not only of every practitioner who is called to treat this class of patients, but who wishes to be thoroughly furnished in every department of his profession. We could have wished that more attention had been paid to style and grammatical construction, but as these have been sacrificed to conciseness and condensation, we pass them by. A single extract from the report of Dr. Bell, of the McClean Asylum, will serve to show the present views of physicians connected with our insane establishments, regarding the best mode of treating this class of diseases.

"Each year that I have passed in this extensive field," says Dr. Bell, "has served to diminish my confidence in an active medical treatment of almost every form of disease of the mind, and to increase my reliance on moral means. No individual at the head of an insane institution would now think of combating any form of insanity with the depletory and reducing means once regarded as indispensable. The practice of bleedings, violent purgatives, emetics, vesications, and derivatives, has passed away before the light of experience. A different and opposite mode of treatment by energetic sedatives, I am satisfied, is obnoxious to many objections, although far to be preferred to the first. The recoveries under their administration, occasionally most magical and most gratifying in appearance, and for the present, as far as my observation and experience have extended, are neither so perfect nor so permanent as under a less decided course of measures. A *wise expectation*, and a cautious use of medical agents to meet symptoms, comprise most of the aids that the pharmacopeia is capable of affording. But in relation to moral means especially, carried through as they can only be, by the instrumentality of an appropriate institution, my annual experience has only exalted my confidence." (p. 501.)

Art. XVIII.—*The Virginia Springs, with their analysis; and some remarks on their character, together with a directory for the use of the White Sulphur Water, and an account of the diseases to which it is applicable, etc.* By J. J. Moorman, M.D., Resident Physician at the White Sulphur Springs. Philadelphia, Lindsay & Blackiston.

As a general rule, treatises on mineral waters, written by the proprietors thereof, or by the physician who lives upon the reputation which said water may have in the cure of disease, must be received with some grains of allowance. His opinions are not necessarily to be distrusted—this will depend upon his general character for integrity and veracity; but they are to be scrutinized with due care, and only admitted when sustained by proper evidence. When we find Dr. Burke of the "*Red Sulphur*," disparaging the virtues of the "*White Sulphur*," and Dr. Moorman, of the "*White*," returning the compliment by a similar estimate of the "*Red*," the disinterested invalid may perhaps begin to doubt whether any real efficacy attaches to either, or if any, what may be its nature and extent. We should, however, do injustice to Dr. Moorman, if we conveyed the idea that he denies medicinal virtues to the Red Sulphur; he admits that it is *the least stimulating* of the Virginia Sulphur Waters, but not *sedative* as maintained by Dr. Burke, and that it may be successfully used in some cases, especially those of irritation of the pulmonary organs, in which other waters would be contra-indicated and prove injurious. "In sympathetic or translated affections of the lungs," says Dr. M., "whether that state be occasioned from disease of the digestive or chylopoietic viscera, or be dependent upon the retrocession of some habitual discharge, this water (Red Sulphur) deserves to be regarded as a valuable remedy." (P. 190.)

The White Sulphur Springs are situated in the county of Greenbrier, Virginia, on Howard's Creek, six miles west of the Alleghany chain of mountains, Lat. 37½° N. and 3½° west Long. from Washington. Temperature of the water, 62° Fahr., clear and transparent, depositing a white precipitate, (sulphur), and tasting and smelling strongly of sulphuretted hydrogen gas. 100 cubic inches contain 65.54 grs. solid matter, of which the principal ingredients are, sulphate of lime 31.680 grs., sulphate magnesia 8.241 grs., sulphate soda 4.050 grs., carbonate lime 1.590, with traces of carb. magnesia, chloride magn., chloride calcium, chlor. sodium, sulph. iron, sulph. alumine, and earthy phosphates; also a trace of azotized organic matter and iodine. It also contains about $\frac{1}{14}$ of its volume of nitrogen gas, oxygen and carbonic acid gases, with a trace of hydro-sulphuric acid—or 1 gallon contains of these gases about 16 cubic inches.

With respect to the diseases to which the White Sulphur Water is applicable, Dr. Moorman remarks:

> "All mineral waters are stimulants to a greater or less degree, and consequently are inapplicable to the treatment of acute, or highly inflammatory diseases. This remark is especially true as relates to the white sulphur, particularly when drank fresh at the spring and abounding in its stimulating gas. It is true, as before shown, that when its exciting gas has flown off, it becomes far less stimulating, and may be used with safety and success in cases, to which in its perfectly fresh state, it would be totally unadapted. But even in its least stimulating form, it is inadmissible for excited or febrile conditions of the system; and especially to cases of inflammatory action;—at least, until the violence of such action has been subdued by other and appropriate agents.
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> "It is to chronic affections of the organic system that the white sulphur water is peculiarly applicable.
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> "Various diseases of the stomach, liver, spleen, kidneys and bladder, as well as some derangements of the brain and nervous system generally, are treated successfully by this agent. To the various affections of the skin, unattended with active inflammation,—to chronic affections of the bowels,—and to gout and rheumatism, it is well adapted. In hæmorrhoids;—in some of the chronic affections of the womb;—in chlorosis and other kindred female disorders, in mercurial sequelæ, and especially in the secondary forms of lues, and ill-conditioned ulcers in depraved constitutions, it constitutes the most valuable agent to which the invalid can resort.
>
> "If the individual about to submit himself to the use of this water, is suffering from fulness and tension about the head, or pain with a sense of tightness in the chest or side; he should obtain relief from these symptoms before entering upon its use. If his tongue be white, or heavily coated; or if he be continuously or periodically feverish, or have that peculiar lassitude, with gastric distress, manifesting recent or acute biliary accumulations, he should avoid its use until, by proper medical treatment, his biliary organs are emulged, and his system prepared for its reception. Much suffering, on the one hand, would be avoided, and a far larger amount of good, on the other, would be achieved, if visiters were perfectly aware of, and carefully mindful of these facts.
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> "It is an every day occurrence during the watering season at the "White," for persons to seek medical advice, for the first time, after they have been using the water for days, perhaps, for weeks, and it is then sought because of vagrant operations, or injurious effects of the water. In most such cases, there will be found, upon examination, either the existence of some of the symptoms just mentioned, or evidences of *local inflammation* in some part of the body, sufficient to prevent the constitutional efficacy of the remedy. We are often struck with the control which an apparently inconsiderable local inflammation will exert in preventing the constitutional effects both of the mercurial and mineral waters. To remove such local determinations where

> they exist, or greatly to lessen their activity, is all important to secure the constitutional effects of sulphur water."

In relation to the effects of the White Sulphur Water in the treatment of dyspepsia, Dr. M. observes:

> "In this common and annoying disease, consisting in derangement of function in the organs of digestion, the white sulphur water has long maintained a high character. In this affection, especially in its confirmed stage, we almost invariably find the biliary secretions either vitiated in quality or deficient in quantity; constituting an important, and not unfrequently, an embarrassing feature in its treatment: nor can we ordinarily succeed in effecting a cure, until the secretory functions of the liver are restored to a natural and healthy condition.
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> "The beneficial effects of this water in *dyspepsia*, seem to result mainly from its sanative action upon the liver. To *alterate* the secretory functions of that organ, and establish a flow of healthy bile, is one of the great forts of the water, and almost an invariable result of its persevering use.
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> "That the water benefits the stomach in many cases by a primary action,—first, as an alkali and stimulant, neutralizing its acidity, and imparting directly a tone and energy to the viscus—and, secondly, by a positive influence on its glandular structure, occasioning a healthy flow of gastric juice, we do not doubt. Still the most decided and permanent benefits derived by dyspeptics, have always seemed to us to be the result of full alterative impressions upon the liver. Certain it is that without such an influence upon that organ, the dyspeptic can never be confident of the permanency of his relief. It would be well for sufferers under this distressing malady to bear this in mind, and not abandon the use of the water, as many do, until it has fully impressed the liver;—nor be discouraged at its apparent want of efficacy until it has been used sufficiently long to effect this object."

In diseases of the liver and spleen there is satisfactory evidence also that the White Sulphur Water is highly beneficial. Says Dr. M.:

> "The white sulphur water acts specifically upon the secretory organs, and especially upon the liver.
>
> "We have already, in another part of this volume, shown the striking similarity of action between mercury and sulphur waters upon the animal economy. In nothing is this more manifest than in their operations on the liver.
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> "The *modus operandi* of sulphur water upon this viscus, is dissimilar we conceive from that of mercury, and yet the effects of the two agents are strikingly analogous. The potent and controlling influences of the water over the secretory functions of the liver, must be regarded as a specific quality of the agent, and as constituting an important therapeutical feature in the value of the article for diseases of this organ. Its influence upon this gland is gradually, but surely to unload it when engorged, and to stimulate it to a healthy exercise of its functions when torpid. The control which it may be made to exercise over the liver, in correcting and restoring its energies, is often as astonishing as it is gratifying,—establishing a copious flow of healthy bile and a consequent activity of the bowels,—imparting vigor to the whole digestive and assimilative functions, and consequently energy and strength to the body, and life and elasticity to the spirits.
>
> "Attention was directed at an early period in the history of mineral waters, to their controlling influence over diseases of the liver, and by the best informed practitioners both of Europe and this country, sulphur waters have always been favorite remedies in the treatment of that class of affections.
>
> "The celebrated Dr. Armstrong, although of cool discriminating and well balanced mind, was so much devoted to their use in chronic inflammations and congestions of the liver, that some of his cotemporaries, less practised in their use, thought him infatuated upon the subject. He preferred them, most decidedly, as an independent remedy, to mercury in all its forms; but

very properly observes, that in some cases, it will be found best to combine the operation of the two agents at the same time.

"For many years we have kept a *case book* at the White Sulphur, and have carefully noted the influence of the water upon such diseases as have been submitted to our management. Among the number arise several hundred cases of chronic affections of the liver, embracing disease of *simple excitement*, chronic *inflammation*, *congestion*, *engorgement* and *obstruction* to the biliary ducts, &c., &c. These cases were all treated either with the white sulphur water alone, or aided by some other appropriate alterative remedy, and in looking at the results, we must be permitted to express a doubt whether a larger *relative amount* of amendments and cures have been effected by the usual resources of the medical shop. This we know is high eulogy of sulphur water in such diseases. It is considerately made, and is not higher than their merits deserve.

"It is proper that those affected with liver disease, (and they constitute no small portion of the population in certain districts of our south-western territory), should know something of the confidence they may place in these waters for relief.

"Volumes might be filled with details of gratifying results that have taken place in the cases of invalids, from almost every section of the country, who visited these waters as a sort of "last resort" for liver disease. And hundreds of delighted witnesses may be found, especially in the warmer regions of the south, who bear a willing and grateful testimony to their utility in such cases.

"Let us not be understood, however, as advancing the opinion, that sulphur water will cure every case of chronic liver disease. Far from it. We have already stated elsewhere, that mineral waters will sometimes fail in chronic diseases of *disordered action only*. This, it is most probable, happens in cases where the blood-vessels have been so long distended, as to have lost their power of returning to their natural state. Besides, it will happen that among the number of invalids that crowd our watering places, seeking relief from this common affection, many will be found, in whose livers organic lesions have already taken place. . In such, perfect cures need not be expected either by sulphur waters or any other agents.

"Jaundice is a form of liver disease in which the white sulphur water is used with very happy effects.

"Although it is often met with at the springs, we remember but few cases that were not either radically cured or greatly benefited, from a proper perseverance in the use of the water. In this, as in most other forms of liver disease, the salutary operations of the water will be hastened by the administration of some mild alterative medicine in connexion with it for the first few days."

For the effects of the water in other diseases we must refer to the work itself, which we doubt not, is entirely trustworthy, as it is written in a spirit of candor and good taste, which cannot fail to make a very favorable impression upon the reader.

Art. XIX.—*Summary of the Transactions of the College of Physicians of Philadelphia*—From December 1846 to April 1847, inclusive. 8vo.

We here have a continuation of the very able communications made to the College of Physicians, of our sister city, and they suffer none in comparison with those of former years.

The most interesting portions are the "Annual Report on Meteorology and Epidemics," for 1846, by Dr. Moore, and the "Annual Report on Diseases of Children," by Dr. Condie. We have also a series of valuable cases by Dr. Hallowell, illustrating the "Natural History of Tuberculous Disease," and a paper by Dr. Parrish, on the "Letheon." On this subject we quote the following remarks, in the justice of which we cordially coincide, with the exception of the imputation cast upon the Boston Medical and Surgical Journal, which appears to us wholly unfounded. We know no more consistent and hearty opponent of quackery in this country, than Dr. Smith, the able and industrious editor of that periodical.

"That an agent, which is said to possess such useful qualities, should be patented, and that the patent should bear the name of an intelligent physician, and a man of science, must be a source of extreme regret to every liberal member of our profession. We understand that both the patentee and the proprietor, hold a diploma from a medical college; and we observe further, that the course of these gentlemen in making merchandize of this discovery, if not openly justified, is excused by the Boston Medical Journal. We trust that these facts are not to be taken as an expression of the sentiments of the medical community of Boston.

"If the agent referred to, really possess the power claimed for it; if its character as a certain and safe means of assuaging human suffering should become established, how different will be the position of its discoverer from that held by the true promoters of science. Whatever plea may be set up at this late period, for the restrictive policy of securing patent rights for discoveries which tend to relieve the sufferings of mankind, or to extend the boundaries of science; the sordid motive of self-aggrandizement and individual interest in these as in inventions relating to manufactures and the mere mechanic arts will undoubtedly be attributed to those who avail themselves of this policy. It is to secure individual rights against the public appropriation of an improvement that the law grants the patent vesting exclusive ownership in the inventor, with the right to dispose of his invention for his own profit. To us it would appear much more candid and manly for those who avail themselves of this privilege and use it to this end, openly to avow it and not attempt to excuse their course by pretending great solicitude for the public welfare; the fear, if their secret is made known, that unworthy and ignorant people may use it to the detriment of others, when it is well known that many of the most useful and indispensable substances in daily use, are, if improperly employed, exceedingly dangerous and destructive.

"How far the eminent physicians who have given this article their sanction without knowing its contents, are justified in this departure from the rule, which has generally regulated the conduct of the most honorable and conscientious members of our profession in such cases, it is not for us to determine. In the present instance they may have deemed the circumstances of such a character as to warrant them in adopting this course; but we sincerely hope that no precedent will be thereby established which shall tend to lower the standard of physicians on this point. There is a principle involved in this question of patents which is vital to the existence of the medical profession as a liberal, humane, and scientific art. If that be given up, and the doctrine be substituted that the physician has a right to appropriate to his own pecuniary benefit any useful medical discovery which he may make, the barrier that now separates us from the charlatan is broken down, and the high position which our profession has long held as a humane and dignified calling is lost.

"We hope, therefore, that whatever may be the results attained by this new process, that medical men will be especially careful to avoid any compromise of principle in regard to the position in which it stands before the public, and that the whole medical community will, with one voice, enter their protest against keeping secret any process or preparation, a knowledge of which would extend our means for the relief of human suffering."

ART. XX.—*A Discourse delivered at the Funeral of Luther Ticknor, M. D., of Salisbury, Conn., April 20th*, 1846. *By* ADAM REID.—Hartford, 1847, 8vo., pp. 16.

THIS is an exceedingly interesting and appropriate discourse, though hastily prepared, and reluctantly given to the public. We have room only for a single extract:

"Luther Ticknor was born in Jericho, State of Vermont, March 9th, 1790. In an auto-biographical sketch which he recently commenced, and which unfortunately remains uncompleted, Dr. Ticknor thus remarks: 'In recording some of the incidents of my life and reminiscences of my family, I have no other than the following motives—to record some of the instances of God's goodness which may soon slip from my memory, and to oblige a little friend or two who may wish to know, at a future day, somewhat more particularly than they can otherwise learn, the manner in which I have been helped so far on, in the journey of life. If youth would take lessons of age, much time would be saved, many disappointments and unavailing regrets avoided; and hence, every succeeding generation would grow practically wiser. No events in my history previous to the death of my father, which took place when well advanced in my fifteenth year, deserve your attention, perhaps; and yet you will indulge me I hope, in a few remarks.'

"Dr. Ticknor then proceeds to describe what he considered his early traits; among these he mentions his 'social character,' which, he says, was 'strongly marked.' The intellectual and moral character which he attributes to himself, during his earlier years, is by no means flattering; but he speaks of his 'strong, deep, and controlling filial affection'—a trait which he is believed to have possessed in a very eminent degree.

"Soon after marriage, the parents of Dr. Ticknor removed to Vermont, then a new State, and settling rapidly, chiefly by emigration from Connecticut and Massachusetts. They remained however, but two or three years, when they returned to Salisbury. From here they removed after several years, to the town of Windham in the State of New-York, where they settled on a farm. Soon afterwards, the father of Dr. Ticknor was instantly killed by the falling of a tree, while chopping. The eldest brother, Dr. Benajah Ticknor, now surgeon of the U. S. ship Columbus, having left home, the whole charge of the family, including eight persons, devolved on Luther Ticknor, then a lad of 15 years; who, by his own personal exertions, kept them together, and furnished them the means of support for the space of three years. At the end of that time, it was thought expedient, that the family should be separated; and young Ticknor came to this place, where he lived with the late Samuel Lee, Esq., for two years; then he engaged as a school-teacher for one year, near Hudson; after which he returned to Salisbury, and commenced the study of medicine, with the late James R. Dodge. During a portion of the year, he was engaged in teaching, by which he supported not only himself, but two of his younger brothers and sister, whom he kept constantly at school. One of these brothers was the distinguished author and practitioner, the late Dr. Caleb Ticknor of New-York, who has left behind him a name and reputation which will not speedily perish from the earth. In 1816, at the age of 28, he was licensed to practise medicine, by the Board of Medical Censors, which met at New Milford; and after spending one year in Sheffield, in practice with Dr. J. Delamater, he returned and commenced practice in this town in the year 1818; 28 years ago, on the 9th of this month.

"No man ever enjoyed in a higher degree the confidence of the profession in this State than Dr. Ticknor, or stood higher in their estimation. For several years past he officiated in the examination of the medical students at Yale College, and, at the time of his death, was President of the Connecticut State Medical Society.

"That he fell a martyr in the cause of humanity there can be no doubt. His benevolence was as unselfish as is ever met with. He probably did more for the poor than any man that ever lived in this town or county. The call of distress never found him unready—the cry of need never appealed to him in vain; and he was emphatically 'the beloved Physician,' as you all know.

"Dr. Ticknor was a man of great native talents. His mind was large, copious, brilliant, original in its conceptions, and acute to discriminate; having at command figures and illustrations and a power of felicitous expression, equal to that of any man we have ever known. He was warm and generous-hearted; unwearied in his work; storm or sunshine, night or day, it made no difference; like the great Physician, spending his life in ministering to human ills, healing sicknesses, and comforting the afflicted; and has now, we trust, gone to his reward. There is no man in this town whose death could make such a gap in society—whose loss would be felt so deeply, so extensively, and so long. He died with a good hope through grace, resting implicitly and alone on the merits of the Lord Jesus Christ."

Art. XXI.—*Proceedings at the Annual Convention of the Connecticut Medical Society, May,* 1847, *together with a List of Members and the Annual Address.* Hartford, 1847. 8vo., pp. 40.

We are highly gratified in noticing, from year to year, the increasing prosperity of the Medical Society of our native State. Embodying a large proportion of the most respectable practitioners throughout the State, it exerts a silent, but controlling influence over medical matters and opinions, and is destined to have a still wider and more powerful sway over public sentiment, as connected with the practice of the healing art. We want no better example to show what organization can accomplish in our profession, than that of the Connecticut Medical Society; as it is one of the oldest, so is it one of the most active medical associations in our country—*Esto perpetua.*

Among the resolutions passed at its recent meeting, (May 12th, 1847, we notice the following:

"*Resolved*, That the subject of selling secret or patent medicines, be referred to a committee of one from a county, who shall, as early as convenient, make a report to this Convention, of the best method, in their opinion, to be had in the premises.

"*Resolved*, That before any person can be admitted into the office of a Physician, as a Student of Medicine, he shall furnish evidence of good moral character, and shall be examined by the preceptor and one of the Fellows of this Society: the examination to be upon the subjects of English education, and Greek and Latin languages. If found qualified, he is to receive a certificate to that effect, and be enrolled as a regular student of medicine.

"*Resolved*, That the Medical Societies of each County, be requested to appoint one or more delegates to attend the next meeting of the *American Medical Association*, which is to be held in Baltimore, on the first Wednesday of May, 1848.

"*Resolved*, That a memorial be presented to the Legislature of the State, relative to the registration of births and deaths, within its limits, and that Drs. Sumner, Beresford and Barry, be a committee to present the same on behalf of this Society."

The Annual Dissertation was read by Dr. E. K. Hunt, of Hartford, the able translator of Esquirol on Insanity. We have read his Essay with high satisfaction and pleasure. It does him and the Society infinite honor. We would that it could be read by every physician in the

United States, for we believe it would tend to impart the very stimulus that is now wanted, to rouse the profession to united action. His subject is, the "Importance and Advantage of a Medical Organization." We have not space for extensive quotations, (and should hardly feel satisfied without quoting the whole), but we give the following, taken at random, as samples of the entire discourse:

"Let us inquire then, what advantages may, and do usually attend and follow such meetings as the terms of our organization contemplate. In the first place, they renew and strengthen the ties of friendship between those already known to each other. Time, like fire, dissolves all bonds of whatever nature, that are not occasionally repaired and cemented anew, by the hands that formed them. Beneath its touch friendships crumble, and the tenderest affections of the heart, imperceptibly, yet surely, fade away. Hence the necessity of frequently renewing those acquaintances and friendships, which accident or design may have led us to form.

"In the second place, it enables those who are strangers, at once to establish a fellowship with their medical brethren, and if, as we have a right to suppose, the parties are equally worthy of a mutual acquaintance, the interview is mutually and equally advantageous. What would otherwise have probably been a work of years, and indeed might never have taken place, is, by means of an organization, suitably formed and conducted, made the business of a day, and minds which had previously been separate and isolated, are now made to act in concert, while sympathies never before felt, are called into active and delightful exercise. Moved by common interests and impulses, experiencing amidst the every day duties of life, the inspiring influence of professional sympathy, and sustained amidst the manifold perplexities and trials incident to practice, by timely professional council, we come to regard the relation as indeed, what it is so frequently called, fraternal.

"Entertaining for each other sentiments like these, the members of our Society, it must be admitted, convene under circumstances most favorable to improvement. A mutual confidence opens every heart, a generous friendship renders all communicative, and a high regard for truth, with a clear conception of its bearings upon the interests of man, as well as the profession itself, leads to an earnest boldness in the expression of opinions, and a careful discrimination between fallacious theories, and well established principles. Thus each imparts, and in turn, derives much good from these free and kindly interchanges of sentiments, sympathies and opinions.

"We should leave these general views but half considered, did we omit to dwell for a moment, upon the moral effect connected with a medical organization. The very constitution of our being forbids that it should be wholly inoperative in this respect. From infancy we have been subject to the sway of moral forces of various kinds, as we passed along through the successive stages of life, and have observed the power of associated influence upon the minds of many others. I can but think, that the high moral tone, characterizing the sentiments and actions of the members of this Society, the purity of the principles contained in that code of ethics by which we are governed in this relation, exercise a powerful influence over the minds of all; and are especially serviceable by the encouragement they afford, for "patient continuance in well doing," to those who are prone to despond, either from a want of firmness of soul, or in consequence of observing the temporary triumphs of the wicked; and those, also, who see little to admire in virtuous principle, except when illustrated by a shining example."

In relation to the facilities, which a State and County organization affords, for acquiring and disseminating useful knowledge, Dr. H. remarks as follows:

"The County Societies will first, and especially, claim our notice. Occupying, as they do, a middle place between the individual on the one hand, and the State Society on the other, we may safely infer, that whatever means may be adopted, by which they shall be made the instruments of good, will be equally serviceable to all at either extreme.

"Let us then, suppose a County Society, the members of which, animated by a sincere and earnest desire for professional improvement, are ready to adopt, and submit to all the inconvenience and fatigue incident to it, any plan by which this object may be attained.

"Divide then your members into two, four or more classes, as shall seem to be most desirable; select for each a subject for study, observation and investigation, and require from its Chairman, a written report at the meeting next succeeding. Let them not be subjects, novel and strange, which furnish few practical examples during a life of professional observation; but rather, such as are comparatively familiar.

"Fear not that these will fail to furnish matter of interest and instruction to members, or that entire unanimity of opinion or practice with respect to them, will be found to exist. A few trials will resolve your fears, and doubtless change your minds. Require your several committees to consider their respective subjects practically, having reference mainly, to the satisfying of such inquiries as will naturally occur to an intelligent, active member of the profession. Let them ascertain as near as may be, the numbers who suffer from the diseases of which they are each to take especial note, and the deaths that are occasioned by them respectively. Let them report the circumstances that attend their development and progress to their termination, the treatment employed, accurately, and in detail, and its apparent effect; the age, occupation and habits of the patient; the predisposing and proximate causes, so far as they can be satisfactorily ascertained; the locality in which the patient resides, whether upon a hill or in a valley; in a primitive or alluvial district, upon a damp soil, or one well drained; together with any other facts that may serve to elucidate the case, and add to the interest or information of members. Finally, let each committee present the general truth which may be fairly deducible from a careful survey of the subject, and leave it impressed as strongly as possible upon the minds of all. By bringing the energies of the whole medical mind of a County, to concentrated action upon a few subjects of the utmost practical importance, and in reference to which, we enjoy the most favorable opportunity for observation and investigation, we cannot fail to collect an immense mass of the most valuable material, with respect to which, explanations may be made, if required, discussions permitted, and data furnished for most accurate pathological deductions.

"The facts and observations presented in the reports prepared for the County meetings, should be collated by a committee appointed for the purpose, which might well consist of the Fellows elect of the County, and those of special value and importance, forwarded in proper form to the Convention, there to be again read and considered, and the good they are capable of conferring, spread throughout the State.

"A single County has been the basis of the above remarks, yet they will apply equally well to every and all other Counties of the State, which by an equally diligent use of the means and opportunities at their disposal, might collect an equal amount of facts and information, to swell the mass already accumulated. Indeed, they would furnish matter for deductions of great interest, and possibly of far greater proportionate practical value, than a single County could be expected to do. For example, these returns would show in what portions of the State, the diseases considered were most, and where least prevalent; where they were most severe, and where their course proves generally mild. In regard to some diseases, we know, that within the limits of a comparatively small district, great diversities exist with respect to their prevalence, if not their severity. I believe that a careful survey of this State, would show, that typhus fever prevailed much more extensively and severely in some parts or districts than others; and probably the same is true of many other diseases. Should such prove to be the fact, it might lead to examinations that would present important practical truths, of much interest to society, a swell as to the profession.

"Thus would each and every part, become a contributor of the most valuable and interesting information to every other part, receiving in return, more than an equivalent in kind, from its associate members, and furnishing to every individual belonging to the Society, the results of the experience of the four hundred and eighty-three physicians, now practising in the State, together with the leading facts upon which they are founded. How else could a like amount of equally authentic and valuable information be obtained; and is any thing more required to secure it, in all the vigor and freshness of its prime, than for each to resolve to perform his allotted portion of the task of obtaining and recording it? A task by no means difficult of accomplishment, when once resolutely undertaken."

We commend these suggestions to medical men in other States and territories, and trust that as we now have a *general organization* of the profession, we may also have such a system of local organization as will embrace every reputable physician in the United States. Let them adopt the code of Medical Ethics prepared by the committee of the National Convention, and see that they are duly observed by their members, and we have, at once, contributed much to elevate the profession, and gain for it the confidence of the community.

PART THIRD.

American Intelligence and Editorial.

Proceedings of the National Medical Convention held in the City of Philadelphia, in May, 1847.

We devote a considerable portion of our present number to the reports and proceedings of the "National Medical Convention," recently held in Philadelphia. Their value and importance will justify their entire publication in our columns; where they will always be useful for future reference. We consider ourselves peculiarly fortunate in having been able to attend this Convention, as we doubt not every one does, who was present; and we but express the united feeling of the delegates, when we say that the physicians of Philadelphia did themselves infinite credit for the unbounded hospitality manifested towards its members. Especially will this remark apply to the "Committee of Arrangements" appointed by the delegates from that city, and the Professors of the different Medical Colleges, (now, not a few). But all seemed to vie with each other, in rendering the occasion one of high and unalloyed gratification; and such it confessedly was. On arriving and recording their names in the register at the room of the Academy of Natural Sciences, the place of meeting, each delegate was furnished with a card of admission to all the hospitals, colleges, and other public institutions of the city, including the Girard, the United States Mint, &c., &c., and there were few, it is believed, who did not avail themselves of the opportunity of visiting these establishments before leaving the city. Such was the general desire to oblige the delegates, that the doors of these different public institutions were thrown open to them at all hours, and such as were unusual for the reception of visitors, and the greatest willingness manifested to entertain, and give all desired information.

When to these, we add the social dinner parties, the evening *soirées and conversaziones*, the daily *re-unions*, the animated, and always good-natured debates, the extensive and agreeable acquaintances formed, we are safe in saying, that pleasant and profitable reminiscences, connected with the occasion, will follow each delegate through life.

With respect to the proceedings of the Convention, we have not space in our present number for extended comment. In general, they have our hearty concurrence. The plan of prolonging the sessions of our Medical Colleges, to six months, it is feared, will be found difficult, if not impracticable. The student would probably find it more convenient and profitable to extend his attendance on lectures through *three* sessions of four months each, as is now practised to a very considerable extent. Still, we would not discourage the attempt to lengthen the session in any College, where there exists a disposition to attempt it, and ability to carry it out. We are authorized in stating that the Geneva and Buffalo Medical Colleges are ready to comply with the recommendation, whenever the other schools in the State come into the measure. We were in favor of referring this question to the Medical Colleges, as suggested by Professor Pattison, and let them by convention agree on and report to the next meeting of the National Medical Association, what measures they deem practicable, and then let action be taken thereon. At present there is danger that the recommendation will not be extensively carried out, for want of such previous concert and action. Without such concert, all partial attempts will rather tend to defeat the ultimate success of the plan.

With respect to the long agitated question of uniting the business of teaching and licensing in the same hands, we were gratified in finding the Convention unanimously scouting the idea, that such union "*is wrong in principle*," although admitted to be "liable to great abuses in practice."

In relation to the remedies for these abuses, though not as great as many suppose, we are in favor, as we always have been, of mixed boards of examiners, believing that this plan, if adopted, as at New Haven, Geneva, &c., will provide sufficient guarantee against the admission of unworthy candidates to the doctorate. These should be the only boards for licenses in the different States, but they should be so constituted, as to satisfy the profession that if abuses exist, they are not to be laid altogether at the door of the Colleges. The whole subject has very properly been referred to the Committee on Medical Education of the National Medical Association.

We need hardly remark that the utmost harmony and good feeling prevailed throughout the entire session of the Convention; subjects the most exciting were discussed calmly and coolly, and a spirit of conciliation and moderation pervaded the whole body. We congratulate the profession upon the brightening auspices opening before them; upon the evidences of a true revival of medicine in our land; of the increasing confidence manifested towards its cultivators by the public at large; and especially do we congratulate them that at length, a NATIONAL MEDICAL ASSOCIATION has been constituted, to give frequent, united and emphatic expression to their views and aims; and to supply more efficient means than have hitherto been available, for cultivating and advancing medical knowledge; for elevating the standard of medical education; for promoting the usefulness, honor, and interests of the medical profession; for enlightening and directing public opinion, in regard to the duties, responsibilities, and requirements of medical men; for exciting and encouraging emulation and concert of action in the profession; and for facilitating and fostering friendly intercourse between those who are engaged in it. These objects will ever command the approval and co-operation of all who desire the elevation and prosperity of one of the most honorable and useful callings which man is permitted to discharge.

In regard to the "Standing Committees" appointed in pursuance of the order of the Association, by the President, it strikes us as somewhat remarkable that *seven* at least of the gentlemen appointed, are not members of the Association, while many who have distinguished claims to such a distinction, have been entirely passed by. For example, the committee on "Practical Medicine" embraces four gentlemen of this city, only one of whom is a member of the Association, and the same of other committees. We doubt not those physicians, thus honored, will see the propriety of declining to serve, until they belong to the body, on whose committees they have been chosen, probably through inadvertence; and we have no doubt that the worthy President, when he is made aware of the dissatisfaction to which such irregularity inevitably gives rise, will speedily correct the error into which he has fallen. But few of the numerous Colleges represented in Convention, are honored by a place on any of the committees, while one School in this city furnishes chairmen for two committees. "Honors divided" should be the motto in an association, which assumes the title of *National.*

"The delegates to the National Medical Convention assembled in the hall of the Academy of Natural Sciences, May 5th, 1847, at 10 o'clock, A. M.

"Dr. Isaac Hays, Chairman of the Committee of Arrangements, from the Philadelphia delegation, opened the proceedings with a few remarks, welcoming the delegates to the city, and expressing on behalf of his delegation, the gratification it afforded them to receive the members of the Convention as their guests. He then proposed a temporary organization, and nominated Dr. Jonathan Knight, of Conn., as Chairman. This nomination was unanimously confirmed.

"Drs. Arnold of Georgia, and Stille of Philadelphia, were then appointed Secretaries.

"On motion of Dr. Hays, and by appointment of the Chairman, Drs. Arnold of Ga., Blatchford of N. Y., Thompson of Del., Haxall of Va., and Bishop of Conn., were constituted a Committee to examine and verify the credentials of the Delegates to the Convention.

"The meeting then took a recess for half an hour.

"On re-assembling, it was moved by Dr. J. M. Smith, of N. Y., and seconded by Dr. F. C. Stewart, of N. Y., that a Committee of one from each State represented, should be appointed to nominate permanent officers of the Convention.

"Drs. Hall, from Vermont; Holmes, Mass.; Twitchill, N. H.; Dunn, R. I.; E. Ives, Conn.; Stearns, N. Y.; Cole, N. J.; Norris, Pa.; Baker, Del.; Gibson, Md.; Wellford, Va.; Lindley, D. C.; Mitchell, Ky.; Garvin, Ga.; Moultrie, S. C.; Buchanan, Tenn.; Pierce, Mich.; Frye, Ill.; Carpenter, La.; Keirn, Miss.; Bullitt, Mo.; Shipman, Ind.; Butterfield, O.

"The Committee appointed to examine the credentials of Delegates to the Convention, reported, through their Chairman, Dr. Arnold, the following list of Delegates present:*

"*New Hampshire Medical Society*—Drs. Josiah Crosby, A. Twitchill, F. P. Fitch, A. O. Dickey, J. Bartlett.

"*Vermont Medical College*—Dr. Alonzo Clark.

"*Vermont Medical Society*—Dr. Charles Hall.

"*Faculty of Castleton Medical College*—Dr. T. M. Markoe.

"*Massachusetts Medical Society*—Drs. Z. B. Adams, A. L. Pierson, Wm. Bridgman, Saml. Parkman, Geo. C. Shattuck, jr., John Jeffries, Stephen W. Williams, Elisha Huntingdon.

"*Middlesex District Medical Society*—Drs. Josiah Curtis, N. Cutler, John W. Graves.

"*Faculty of Medicine of Harvard University*—Dr. O. W. Holmes.

"*Berkshire Medical Institute*—Dr. Alonzo Clark.

"*Rhode Island Medical Society*—Drs. Usher Parsons, Theo. C. Dunn.

"*Medical Institution of Yale College*—Drs. Jonathan Knight, Eli Ives.

"*Connecticut Medical Society*—Drs. George Sumner, N. B. Ives, Johnson C. Hatch, Elijah Middlebrook.

"*New Haven Medical Association*—Dr. E. H. Bishop.

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* For want of space, we publish *only* the names of delegates present.—Ed.

" *College of Physicians and Surgeons in the City of New York*—Drs. Alex. H. Stevens, C. R. Gilman, Robert Watts, jr.

" *New York State Medical Society*—Drs. John Stearns, Jno. W. Francis, James R. Manley, Joel A. Wing, Daniel Ayres, Thos W. Blatchford, Morgan Snyder, Jenks S. Sprague, John McCall, A. Willard, N. S. Davis, P. H. Hard, Lake I. Tefft, George W. Bradford, Enos Barnes.

" *Medical Faculty of the University of the City of New York*—Drs. Valentine Mott, Granville S. Pattison, John W. Draper.

" *Rensselaer Co. Medical Society*—Drs. Alfred Watkyns, Simeon A. Cook.

" *Troy Medical Association*—Dr. Alfred Watkyns.

" *Erie Co. Medical Association*—Dr. Bryant Burwell.

" *Cortland Medical Society*—Dr. Frederick Hyde.

" *New York Medical and Surgical Society*—Drs. Jno. A. Swett, J. G. Adams, Abram Dubois, Pliny Earle.

" *Medical Department of the University of Buffalo*—Dr. Austin Flint.

" *Medical Faculty of Geneva College*—Dr. Charles A. Lee.

" *Albany Medical College*—Drs. Alden March, James McNaughton.

" *New York Pathological Society*—Drs. Jno. T. Metcalfe, Thaddeus M. Halsted, Israel Moses.

" *New York Hospital*—Drs. John H. Griscom, John Watson.

" *Medical Society of the City and County of New York*—Drs. Thomas Cock, Albert Smith, Joseph M. Smith, Joel Foster, Wm. M. Blakeman, Abraham G. Thompson, jr., Isaac Greene, John R. Van Kleek, Samuel T. Hubbard.

" *New York Academy of Medicine*—Drs. John Stearns, F. Campbell Stewart, James R. Wood, H. D. Bulkley, Valentine Mott, R. S. Kissam, D. M. Reese, Chas. D. Smith, W. H. Van Buren, James O. Pond.*

" *Medical Society of New Jersey*—Drs. Lyndon A. Smith, Elias J. Marsh, Fred. S. Schenck, William Pierson, Jos. F. Garrison, Joseph Parrish, Othniel H. Taylor, Richard M. Cooper.

" *District Medical Society of Burlington*—Drs. N. W. Cole, Zachariah Read.

" *College of Physicians of Philadelphia*—Drs. Isaac Hays, J. Rodman Paul, Samuel Jackson, (late of Northumberland), Alfred Stille, William Pepper, George Fox, Robert Bridges, Jacob Randolph, J. Wilson Moore, Caspar Morris, C. D. Meigs, D. F. Condie, Joseph Carson, R. La Roche, C. R. King.

" *University of Pennsylvania*—Drs. Nathaniel Chapman, Samuel Jackson, George B. Wood.

" *Philadelphia Medical Society*—Drs. John Bell, G. Emerson, I. Parrish, G. W. Norris, Francis West, W. Ashmead, B. H. Coates, H. Bond, S. G. Morton, T. H. Yardley, G. D. Griscom, L. Rodman.

" *Medical Institute, Philadelphia*—Dr. John Neill.

" *Jefferson Medical College*—Drs. John K. Mitchell, Franklin Bache, Thos. D. Mutter.

" *Pennsylvania College*—Drs. Henry S. Patterson, John Wiltbank, Washington L. Atlee.

" *Franklin Medical College*—Drs. James B. Rogers, David H. Tucker, Levin S. Joynes.

" *Philadelphia College of Medicine*—Drs. Jesse R. Burden, James McClintock.

" *Northern Medical Association of Philadelphia*—Drs. Wilson Jewell, Benj. S. Janney, Moses B. Smith, John Uhler, Arnold Naudain, Isaac Remington, H. J. Brown, Jos. R. Bryan, Wm. S. Haines, Wm. Maybury, Alex. C. Hart, Jos. D. Stewart.

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* Drs. Arthur B. Stout, S. Conant Foster, Jas. L. Phelps, Daniel Ayres, jr., and Ebenezer Macfarlan, attended as substitutes for delegates of the New York Academy of Medicine not present.

"*Lancaster City and County Medical Society*—Drs. Sam'l Humes, Sam'l Duffield, J. L. Atlee, George B. Kerfoot, Jno. K. Eshleman, Henry Carpenter, Charles L. Baker.

"*Medical Society of Montgomery County*—Drs. Geo. W. Thomas, Hiram Corson, John S. Foulke.

"*Medical Society of the State of Delaware*—Drs. J. W. Thomson, James Couper, W. N. Hamilton, W. W. Morris, Wm. Cummins.

"*Medical Association of the City of Wilmington*—Drs. H. F. Askew, Geo. W. Baker, Lewis P. Bush, R. R. Porter.

"*Medical and Chirurgical Faculty of Maryland*—Drs. G. C. M. Roberts, J. R. W. Dunbar, Alex. C. Robinson, J. H. Briscoe, Joel Hopkins.

"*Association of Medical Faculty of Frederick City*—Dr. Samuel Tyler.

"*Washington University of Baltimore*—Drs. Chas. Bell Gibson, W. T. Leonard.

"*Medical Society of the District of Columbia*—Drs. F. Howard, Harvey Lindsly.

"*Medical Department of the Columbian College*—Drs. Thos. Miller, Joshua Riley, John F. May.

"*Medical Convention of Virginia*—Drs. B. R. Wellford, H. H. McGuire, J. L. Cabell, J. F. Peebles, Mathew H. Houston, Hardin Massie, William Selden, G. L. Corbin, Daniel Trigg.

"*Medical Society of Virginia*—Drs. Robert W. Haxall, John N. Broocks, Carter P. Johnson.

"*Petersburg Medical Faculty*—Dr. J. F. Peebles.

"*Medical Society of Fredericksburg*—Dr. Geo. F. Carmichael.

"*Medical Society of South Carolina*—Drs. James Moultrie, Wm. T. Wragg, James P. Jervey.

"*Medical College of the State of South Carolina*—Dr. James Moultrie.

"*Georgia Medical Society*—Drs. Richard D. Arnold, Johnston B. Tufts.

"*Medical College of Georgia*—Drs. L. A. Dugas, J. P. Garvin.

"*Mississippi State Medical Society*—Dr. G. Keirn.

"*Medical Department of University of Louisiana*—Drs. John Harrison, Wm. M. Carpenter, A. J. Wedderburn.

"*Medical Department of the St. Louis University*—Dr. A. Litton.

"*St. Louis Association of Physicians*—Dr. D. E. Meade.

"*Rush Medical College*—Dr. Jos. C. Frye.

"*Indiana Medical College*—Dr. A. B. Shipman.

"*Michigan State Medical Society*—Dr. Jas. L. Peirce.

"*Medico-Chirurgical Society of Cincinnati*—Dr. David Judkins.

"*Ohio Medical Convention*—Dr. John Butterfield.

"*Willoughby Medical College*—Dr. John Butterfield.

"*Medical Department of Transylvania University, Ky.*—Drs. Thos. D. Mitchell, S. Annan.

"*Medical Society of the State of Tennessee*—Dr. A. H. Buchanan.

"The Committee charged with the nomination of permanent officers for the Convention, reported through their Chairman, Dr. Eli Ives, the following nominations:

"*President*—Dr. Jonathan Knight, Conn. *Vice Presidents*—Dr. Alexander H. Stevens, N. Y.; Dr. George B. Wood, Pa.; Dr. A. H. Buchanan, Tenn.; Dr. John Harrison, La. *Secretaries*—Dr. Richard D. Arnold, Ga.; Dr. Alfred Stillé, Pa.; Dr. F. Campbell Stewart, N. Y.;—which were unanimously confirmed.

"The officers having taken their places, the Convention was declared to be duly organized, and ready for the transaction of business.

"On motion of Dr. J. L. Atlee, of Lancaster, Pa., it was

"*Resolved*, That any medical gentlemen present from States not otherwise represented, and the members of the Medical Staff of the Army and Navy, now in the city, be invited to take seats in the Convention.

"The following Resolution was introduced by Dr. Thomson, of Del.

"*Resolved*, That any member of the last Convention, now present, not elected a Representative in this Convention, be invited to take a seat in the same, and participate in its deliberations ;—which on being put to the vote, was lost.

"The following Resolution, presented by Dr. Corbin, of Va., was also lost: viz.:

"*Resolved*, Unanimously, by the National Medical Convention, that the Ex-Professors of medicine of the various Medical Schools of the U. S., and such Professors from abroad as may be in Philadelphia, be invited to take seats in this body.

"Dr. Hays called for the reading of the Report of the Committee appointed by the last National Medical Convention, to prepare a plan of organization for a *National Medical Association*. Dr. Watson, Chairman of the Committee, presented a report, which after being read, was, on motion of Dr. Watson, received and laid upon the table in order to be printed.

"Dr. Griscom, of N. Y., Chairman of the Committee appointed by the last National Convention to consider the expediency and mode of urging upon the State governments the adoption of measures for a registration of Births, Marriages, and Deaths, presented a Report, which was received, and laid upon the table in order to be printed.

"After which, on motion, the Convention adjourned to meet at seven o'clock, P. M.

"*Evening Session*.—The Convention met pursuant to adjournment.

"Invitations to the Convention to visit the Philadelphia House of Refuge, and the Institution for the Deaf and Dumb, were read.

"Dr. Haxall, Chairman of the Committee 'on the requirements for the degree of M. D.,' appointed by the Convention of 1846, presented a Report, which was, on motion, received, and laid upon the table to be printed.

"The Committee on Credentials, reported the following additional names of delegates. From

"*Medical Society of King's County, New York*—Drs. Lucius Hyde, David F. Atwater.

"*New York City Vaccine Institution*—Drs. John D. Russ, John W. Francis.

"*Medical Department of the University of Missouri*—Dr. John B. Johnson.

"*Massachusetts Medical Society*—Dr. J. V. C. Smith.

"*Faculty of Physic of the University of Maryland*—Drs. N. R. Smith, William Power, Samuel Chew.

"On motion of Dr. Reese, of N. Y., the verification of the credentials of the delegates from the N. Y. Vaccine Institution was referred to the delegates from that city, with instructions to report thereupon.

"Dr. Couper, of Del., as Chairman, presented the Report of the Committee 'on Preliminary Education,' appointed by the Convention of 1846, which, after being read, was, on motion, received, and laid on the table in order to be printed.

"Dr. Hays presented a portion of the Report of the Committee appointed by the Convention of 1846, to prepare a code of Medical Ethics, which (after some remarks by the Reporter in regard to the sources from which the provisions of the code were mainly derived) was read and disposed of temporarily, in the same manner as the foregoing reports.

"The following Preamble and Resolution, introduced by Dr. Watts, of N. Y., was adopted:

"*Whereas*, The credentials contain the names of delegates elected, of whom a part will not be present, therefore,

"*Resolved*, That the 'Register' of the Philadelphia Committee of Arrangement be adopted as the Register and Roll of the Convention.

"Dr. Griscom moved that the Committee 'on a Nomenclature of Diseases,' of which he is chairman, be authorized to print so much of the same, as it shall deem expedient for the use of the Convention. *Carried*.

"Dr. D. Judkins, of Cincinnati, moved that when the Convention adjourns, it adjourn to meet at 9 o'clock, A. M. Several amendments fixing the hour at 10, and the length of the Sessions from 9 until 3 o'clock, were rejected, and then the original motion prevailed.

"At the suggestion of Dr. Hays, it was

"*Resolved*, That no persons should have access to the floor of the Convention, except delegates furnished with the cards provided by the Philadelphia Committee of Arrangement.

"After which the Convention adjourned to 9 A. M. of the following day.

"*May 6th—Morning Session.* The Convention reassembled at nine o'clock, A. M.

"The Minutes of the first day's proceedings having been read and approved, the roll was called; after which the Committee on Credentials reported the names of the following gentlemen as duly accredited delegates:

"*Centre Co. Medical Society* (*of Pennsylvania*)—Dr. William J. Wilson.

"*New York City and County Medical Society*—Dr. John D. Russ, (an additional delegate).

"*District Medical Society of Salem County, N. J.*—Dr. Quintin Gibbon.

"*Alumni of Castleton Medical College, Vermont*—Dr. Horace Green.

"Dr. J. H. Griscom, of New York, presented the following resolution, which was adopted:

"*Resolved*, That a committee of five be appointed by the Chair, to consider and report to the Convention measures for defraying its expenses.

"The President then appointed the following gentlemen to be the Committee:—Drs. J. Bell of Philadelphia, A. March of Albany, J. M. Smith of New York, L. A. Smith of New Jersey, B. R. Wellford of Virginia.

"Dr. Stewart reported that the delegates from the New York Vaccine Institution, whose credentials had been referred to the New York City delegations, had withdrawn the same.

Dr. N. S. Davis, of Binghamton, New York, offered the following resolution, which was ordered to be laid upon the table.

"*Resolved*, That a committee of one from each State represented in this Convention be appointed by the President, whose duty it shall be to investigate the *Indigenous Medical Botany* of our country; paying particular attention to such plants as are now, or may be hereafter during the term of their service, found to possess valuable medicinal properties, and are not already accurately described in the standard works of our country; and report the same in writing, giving not only the Botanical and Medical description of each, but also the localities where they may be found, to the next annual meeting of the American Medical Association.

"A letter, addressed to the Secretary of the Convention, was now received and read; it was signed by Dr. Lewis W. Chamberlayne, in behalf of the Medical Faculty of Hampden Sydney College, at Richmond, Va., and expressed the concurrence of the Faculty in the objects that brought the Convention together, and a regret that the delegate appointed to represent that body, was prevented by illness from attending.

"An invitation was received from the Rev. John A. Vaughan, Principal of the "Pennsylvania Institution for the Instruction of the Blind," for the members of the Convention to visit that Institution.

"On motion of Dr. R. S. Kissam, of N. Y., this, and all other invitations extended to the Convention, were ordered to be acknowledged and accepted by the Secretaries.

"Dr. J. Bell, chairman of the Committee appointed by the Convention of 1846, to prepare a code of Medical Ethics, read the introduction to the report presented yesterday, which was, on motion, ordered to be printed.

"The report of the Committee appointed by the last Convention, to consider Dr. Bartles' Resolution, in regard to the union of teaching and licensing, was now called for. Dr. McNaughton, of Albany, Chairman of the Committee, presented and read a minority report. The majority report was presented by Dr. Isaac Parrish, of Philadelphia.

"On motion of Dr. Reese, of N.Y., both reports were received and ordered to be printed.

"Dr. A. B. Shipman, of N. Y., presented the following, which was adopted:

"*Resolved*, That Dr. Thomas Spencer, of Geneva, N. Y., accidentally with us on a tour for the restoration of his health, be invited to sit with us as a member of this Association; to participate in the debates, but not to vote.

"Dr. J. H. Griscom, of N. Y., Chairman of the Committee appointed to prepare a 'Nomenclature of Diseases,' presented and read the report of his committee: which was received and ordered to be printed.

"The following order was proposed by Dr. J. V. C. Smith, of Boston, and on motion of Dr. Watson, laid upon the table for the present:

"*Ordered*, That a committee be appointed by the Chair to select a place for the National Medical Convention to hold a session in 1848.

"Dr. Couper, of Delaware, moved that the report of the Committee on Preliminary Education, be now taken up. This motion prevailed, and the report having been again read, the resolutions accompanying it were declared to be under consideration.

"Several amendments to the first resolution having been proposed and lost, the question was taken upon the adoption of the resolution; and it was adopted.

"The second Resolution was adopted after substituting the word 'pursue' in place of 'complete.'

"The third Resolution having been read, Dr. Cabell, of Virginia, offered an amendment, which was adopted, but subsequently reconsidered and withdrawn, and the resolution passed without amendment.

"On motion, the Report of the Committee was adopted and ordered to be printed, together with the resolutions, as part of the proceedings of the Convention.

"On motion of Dr. John Stearns, of New York, Professor Hare, of Philadelphia, was invited to a seat in the Convention, and to take part in the debates, but without the privilege of voting.

"An invitation was received from the delegates in attendance from the city of Baltimore, for the National Association about to be formed, to hold its session for 1848 in that city.

"On motion, it was determined that when the Convention adjourns, it will adjourn to meet again at 5 o'clock, P. M.

"Dr. Joel Hopkins, of Maryland, offered the following resolution to be adopted as a rule of the Convention:

"*Resolved*, That no gentleman shall be permitted to speak more than twice on the same proposition, nor occupy more than fifteen minutes in speaking, without leave of the Convention.

"The Resolution was amended, by inserting 'ten minutes' in lieu of 'fifteen minutes,' and then adopted.

"On motion of Dr. M'Naughton, of Albany, 250 additional copies of the Report of the Committee on Preliminary Education were ordered to be printed, and the Convention adjourned.

"*Afternoon Session.*—The Convention was called to order at the hour to which it had adjourned.

"The Committee on Credentials reported the name of Dr. J. Breitenbach, as an accredited delegate from the Lebanon County Medical Society of Pennsylvania.

"Dr. J. L. Pierce of Michigan, offered the following resolution, which was adopted:

"*Resolved*, That the delegates to this Convention, be requested to ascertain, as far as may be practicable, and report to the next annual meeting, the number of practitioners of medicine in their respective States—designating the number who may have received a diploma from a medical college, the number who may have been licensed by a medical society, and the number who practise medicine without any authority whatever.

"Dr. I Hays, of Philadelphia, moved to take up the Report of the Committee, appointed under the fourth resolution of the Convention of 1846. This motion prevailed, and on motion of Dr. S. N. Davis, of Binghamton, the resolutions attached to the report were ordered to be considered seriatim.

"The first resolution having been read, Dr. Smith, of Newark, N. J., moved to amend by inserting 'five months,' in place of 'six months'—the amendment was lost, and the question being taken upon the resolution, it was adopted.

"The second, third, fourth, fifth, and sixth resolutions, were then severally read and adopted without discussion.

"The seventh resolution being under consideration, Dr. Washington L. Atlee, of Pennsylvania, offered the following as a substitute—

"'That it is incumbent upon Preceptors to avail themselves of every opportunity to impart clinical instruction to their pupils; and upon Medical Colleges, to require candidates for graduation to show that they have attended upon Hospital practice for one session, whenever it can be accomplished.'

"This substitute, having been accepted by the Committee, was adopted.

"Resolutions were proposed by Dr. J. P. Jervey, of South Carolina, and Dr. A. H. Stevens, of New York, but were withdrawn in favor of the following additional resolution, offered by Dr. F. Campbell Stewart, of New York, and unanimously adopted:

"'That it be suggested to the Faculties of the various Medical Institutions of the country, to adopt some efficient means for ascertaining that their students are actually in attendance upon their lectures.'

"The two remaining resolutions were then acted upon and passed; and, on motion, the report and resolutions were adopted.

"An invitation was received from Dr. Thomas S. Kirkbride, of the 'Pennsylvania Hospital for the Insane,' for the Delegates to visit the Institution under his control; and then the Convention adjourned to nine o'clock, A. M., on the following day.

"*May 7th. Morning Session.*—The Convention re-assembled at nine o'clock, A. M.

"Dr. Stevens, of New York, moved that a committee be appointed to invite Dr. John Redman Coxe to take a seat upon the floor of the Convention; which was carried.

"Drs. Stearns and Eli Ives were appointed.

"Dr. Blatchford, of New York, moved that Dr. Cheney Howe, of St. Louis, Mo., be invited to take a seat upon the floor of the Convention; which was carried.

"The minutes of yesterday's meeting were then read.

"Dr. Haxall, of Virginia, moved to reconsider so much of the minutes as relate to the fifth resolution accompanying the report of the committee of which he was chairman; which motion was carried.

"He then moved to strike out the words 'that not less than one hundred lectures be delivered by each Professor;' which was carried.

"The resolution as amended was then adopted.

"The minutes were then confirmed.

"The Committee on Credentials reported the names of the following gentlemen as accredited delegates:

"*Centre Co. Medical Society, Pennsylvania.*—Drs. Wm. M. Wilson, and John McCoy.

"*Lebanon Co. Medical Society, Pa.*—Dr. Jeremiah Breitenbach.

"*The Med. and Chirurg. Faculty of Maryland*—Drs. P. Wroth, James Bordley, Solomon Jenkins.

"Under a previous resolution, also the name of Dr. Benjamin King, of the U. S. Army.

"Dr. Geo. B. Kerfoot, of Pennsylvania, offered the following:

"*Resolved*, That when physicians are called upon by courts of justice to give medical evidence, or opinions in medico-legal questions; or by coroners to make *post-mortem* examinations, or chemical analyses: such services shall be considered professional, and remuneration expected accordingly.

"Which was laid on the table.

"Dr. Sumner, of Connecticut, offered the following:

"*Resolved*, That a committee of three be appointed to ascertain and report to the next meeting of the Association, what legal enactments exist in the several States relative to the practice of medicine; and also what societies and associations have been formed by the physicians of the different States, to advance the medical profession.

"Which was laid on the table.

"Dr. Bell, of Pennsylvania, made the following report.

"The committee appointed for taking measures to defray the expenses of the Convention, report,

"That from inquiries made they believe that the sum of six hundred dollars will cover all the expenses incident to the meeting of the present Convention, and they respectfully recommend that each member be invited to contribute three dollars to make up the above sum. Signed,

"JOHN BELL, Chairman.

"After some discussion, the report was adopted.

"Dr. L. P. Bush, of Delaware, offered the following, which was laid on the table.

"*Resolved*, That the committee on expenses be requested to collect the amount indicated as necessary to defray the expenses of the Convention.

"On motion of Dr. Watson, of New York, the Convention took up the report of the committee on the organization of the National Medical Association.

"Dr. Naudain, of Pennsylvania, moved that it be read from the Secretary's desk.

"Dr. Cock, of New York, moved to dispense with the reading.

"Dr. Naudain's motion prevailed.

"The report was then read by the Secretary.

"Dr. Hays, of Pennsylvania, moved to adopt the resolution on page second of the printed report, as far as the words, 'and that' on the twelfth line, which was carried.

"The Convention then proceeded to the consideration, seriatim, of the articles proposed for the government of the Association.

"The first article being under consideration, Dr. Kerfoot, of Pennsylvania, offered the following as an amendment, that the title be 'The Conventional Association of the United States.'

"Which was lost.

"Dr. Stout, of New York, proposed the following amendment, that the title be 'The Medical Association of the United States of North America.'

"Which was lost.

"The first article was then put to vote and adopted without amendment.

"The second article being then before the Convention, Dr. Hays, of Pennsylvania, offered the following:

"*Resolved*, That the report be referred back to the committee with instructions to report a plan of organization in accordance with the following sketch.

"1st. The Society to consist of members to be elected by the Association, directly, or through its council.

"2d. Members, before admission into the Association, to sign a promise to conform to the laws of the Association.

"3d. Members who violate this pledge, to be liable to expulsion, and to be deprived of the rights of brotherhood.

"4th. For the appointment of a council to consist of the officers of the

Society, and of councillors, to be elected annually, or all the former, and a portion at least of the latter, to be elected annually. The councillors to have the general superintendence of the concerns and publications of the Association, and to report the proceedings to the Association at its annual meeting.

"After considerable discussion, Dr. Hays' resolution was lost.

"It was then moved to adopt the second article.

"Dr. Cabell, of Virginia, moved to insert, after the word 'Association,' on the ninth line of the third page, second Article, of the printed copy, the words 'but without the right of voting.'

"Which was carried.

"Dr. Askew, of Del., offered the following amendment, which was lost.

"That the third section of the second article be amended, by adding the words 'State and,' between the words 'each' and 'local;' and that the word 'ten' be stricken out, and the word 'five' be inserted.

Dr. Sumner, of Conn., moved to adopt the whole of the remaining articles.

"The question was then taken upon adopting the whole of the remaining articles, and was carried.

"The question was then put upon the adoption in full of the report as amended, and was carried.

"The Convention then took up the report of the Committee on Medical Ethics.

"Dr. L. P. Bush, of Del., moved to adopt the whole of the report, including the introduction.

"Dr. John L. Atlee, of Penn., offered the following amendment, which was lost, viz.: in the fourth Section of Article four, to strike out the words, 'in which they have been called,' and to insert the words 'of seniority, commencing with the youngest.'

"The question on Dr. Bush's motion was then put to the Convention, and was carried.

"The report of the Committee upon Registration was then taken up, and with the resolutions accompanying it, was adopted without dissent.

"The Convention took a recess for ten minutes, to enable members to hand in their contributions to the committee appointed to receive them, for the purpose of defraying the expenses of the Convention. After the Convention had re-assembled, the President announced the following Committee under the second Resolution accompanying the report of the Committee on Registration.

"Drs. J. H. Griscom, C. A. Lee, A. Clark, of New York; G. Emerson, of Pennsylvania; R. D. Arnold, of Georgia; John D. Russ, of New York; Mr. Lemuel Shattuck, of Massachusetts.

"A communication, from Dr. Robley Dunglison, on the publications of the Sydenham Society, was then read to the Convention.

"Dr. Stevens, of New York, moved that the report of the Committee on the nomenclature of diseases, which was next in order, be referred to the American Medical Association; which was carried.

"The Report of the Committee on the Separation of Teaching and Licensing, was then called up.

"Dr. Reese, of New York, offered the following—

"*Resolved*, That the report of the majority of the committee on the subject of separating the teaching from the licensing power in Medical Colleges, be adopted by this Convention, and published in its transactions.

"*Resolved*, That the report of the minority be laid upon the table, and printed in like manner.

"Dr. Leonard, of Maryland, offered the following, as a substitute for the foregoing, which was accepted by Dr. Reese.

"*Resolved*, That in view of the necessity hereby declared for reform in the manner of conferring degrees, the two reports submitted by the committee on the separation of teaching and licensing, be published and referred to the

Committee on Medical Education, with instructions to report at the next annual meeting of the American Medical Association, which was adopted.

"The Convention then adjourned to 5 o'clock, P. M.

"*Evening Session.*—At 5 P. M. the Convention met pursuant to adjournment.

"Dr. J. V. C. Smith, of Boston, introduced the following Resolution, which was read and adopted:

"*Resolved*, That the thanks of this Convention are due to the officers and directors of the various institutions, who have politely invited the members to visit them at their own convenience,—to the Committee of Reception and Arrangements, on behalf of the Philadelphia Delegation, for the spacious and elegant accommodations provided,—to the Academy of Natural Sciences, for the use of its Hall,—and to the whole medical profession of the city, for the marked kindness, personal attention, and generous hospitality, which have characterized their intercourse with this body since the commencement of its deliberations.

"On motion of Dr. L. A. Smith, of New Jersey, it was

"*Resolved*, That those members of the Convention who left the city before the assessment of three dollars to defray expenses was made, be requested to forward that amount to Dr. J. Rodman Paul, of Philadelphia, by letter, or otherwise, as may be convenient.

"Dr. Reese, of New York, introduced the following Resolution:

"*Resolved*, That a committee be appointed to draft a memorial to the Congress of the United States, asking that a portion of the Smithsonian funds may be annually appropriated to the uses of the American Medical Association,—which was seconded by Dr. Meigs, of Philadelphia, but laid upon the table.

"A like disposition was made of the following, offered by Dr. M. H. Houston:

"*Resolved*, That a committee of seven be appointed to report to the next annual meeting of the American Medical Association, such modifications of, and amendments to, the adopted plan of organization, as in their estimation may be imperiously required, in order to accomplish the objects of its original organization.

"On motion of Dr. Thomson, of Delaware, it was ordered 'that the names of the delegates, when published, be arranged by States.'

"The following Preamble and Resolutions, introduced by Dr. Henry Carpenter, of Lancaster, were laid upon the table.

"*Whereas*, The difficulties which sometimes unfortunately arise between the physicians in their attendance upon the sick, are frequently owing to improper procedure, or representations on the part of the patients or friends, from an ignorance of the etiquette which should govern the conduct of the respective parties towards each other; therefore,

"*Resolved*, That the President of this Convention appoint a committee of three, to select such parts of the code of Ethics, adopted by this body, as they may deem expedient, and report the same to the Convention for approval at its session to-morrow morning.

"2*d*, That the Committee of Publication have a sufficient number of copies of the same printed, and deliver, or send, to each delegate a suitable number.

"3d, That delegates request the editors of the public journals, in their respective localities, to publish the same as proper and useful information for the people.

"Dr. Garvin, of Georgia, introduced the following Resolution, which was adopted.

"*Resolved*, That the thanks of the Convention be presented to their President, Dr. Knight; to the Vice Presidents, Drs. Stevens, Wood, Buchanan, and Harrison; and to the Secretaries, Drs. Arnold, Stillé, and Stewart, for the very efficient manner in which they have discharged the various duties imposed upon them.

"Dr. A. Flint of New York, presented the following Resolution, which was passed:

"*Resolved*, That it be recommended by this Convention to the medical profession of the States, wherein laws sanctioning and providing for the prosecution of dissections do not already exist, to unite in endeavoring to procure the passage of such laws.

"Dr. Thomson, of Delaware, offered a Resolution relative to the organization of the 'American Medical Association,' but accepted as a substitute the following, presented by Dr. F. C. Stewart of New York.

"*Resolved*, That all unfinished business be referred to the 'American Medical Association' about to be organized.

"*Resolved*, That this Convention do now resolve itself into the 'American Medical Association,' and that the officers of the Convention continue to act as officers of the Association until others be appointed; which was unanimously adopted.

"On motion, the President was requested to appoint a Committee, consisting of one person from each State represented in the Convention, to nominate officers of the Association for the ensuing year.

"On motion of Dr. Bishop, of Connecticut, it was

"*Resolved*, That the Delegates of every Society or Association, represented in this body, be requested to send to the Secretaries the form of organization, or act of incorporation, and constitution of their Society or Association, with a list of its members.

"Dr. Griscom, of New York, moved that the Report on the Nomenclature of Diseases, be referred to the Committee on Registration, appointed at the morning session. It being objected that this committee was created by the Convention, the Association, on motion of Dr. F. C. Stewart, confirmed the appointment of the Committee, and the Report was referred accordingly.

"Dr. Humes, of Pennsylvania, offered a resolution, directing the Committee on Registration to report on the subject of premature interments, which was laid upon the table.

"The Committee appointed to nominate Officers for the American Medical Association, reported the following nominations:

"*President*—Dr. Nathaniel Chapman, of Pennsylvania. *Vice Presidents*—Drs. Jonathan Knight, Conn.; Alexander H. Stevens, N. Y.; James Moultrie, S. C.; A. H. Buchanan, Tenn. *Secretaries*—Drs. Alfred Stillé, Philadelphia; J. R. W. Dunbar, Baltimore. *Treasurer*—Dr. Isaac Hays, Philadelphia.

"It was determined on motion of Dr. J. L. Atlee, of Pennsylvania, that the vote of the Convention for Officers be taken *vivâ voce*.

"Dr. A. H. Stevens, of New York, moved a reconsideration of this motion; which was carried, and on motion of Dr. Askew, of Delaware, the vote was ordered to be taken by ballot. Drs. Blatchford, of New York, and Haxall, of Virginia, were appointed tellers, and declared that the nominees of the Committee were unanimously elected Officers of the Association for the ensuing year.

"On motion of Dr. Thomson, of Delaware, a committee of five was ordered to wait upon the President elect, and invite him to take the Chair. For this purpose the President appointed Drs. Twitchell, of N. H.; E. Ives, of Conn.; Corbin, of Va.; Jervey, of S. C.; and Annan, of Ky.

"Dr. J. V. C. Smith, of Mass., moved to take up his resolution in regard to the next place of meeting of the Association, and the invitation of the Delegates from Baltimore having been called for and read, it was, on motion, Resolved, that their invitation be accepted.

"Dr. Watson, of New York, moved for a committee of seven, to nominate members of the Standing Committee named in the plan of organization, but the motion was so amended as to empower the President and Vice Presidents, to appoint these Committees in time for the publication of the proceedings, and the motion, thus amended, was passed.

"On motion of Dr. N. S. Davis, of N. Y., his resolution relative to a committee, to report on the Indigenous Botany of the several States, was taken from the table, and adopted.

"Dr. Chapman, the President elect, was then introduced, and on taking the chair, made the following remarks:

"'He could find no language to express the depth of his gratitude. It had often been his good fortune during his professional life to have been complimented in the same manner, though not in the same degree. This was the most precious of all the honors he had received, as spontaneously conferred by his own brethren. He confessed his incompetency to serve the Association as he could desire. He loved his profession, and should be ungrateful if he did not: whatever he possessed in this life, had been bestowed by its favors; when he forgot it, or deserted it and its disciples, he remarked with great emphasis, may Almighty God forget and desert me. He desired that the Association should be persuaded of his ardent wishes for the cause, and that his most strenuous efforts would be unceasingly directed to advance the dignity of the profession, and extend its usefulness.'

"The following was offered by Dr. John B. Johnson, of Missouri:

"Whereas numberless and important evils result from the almost universal practice of allowing persons wholly ignorant of drugs and medicines to engage as apothecaries; and still greater from the universal traffic in patent and secret medicines,

"Therefore, resolved, that the Committee on Education inquire into the expediency of establishing a school or schools of Pharmacy in the respective States, for the special purpose of preparing persons for the business of apothecaries; and also the expediency of adopting a rule that no physician ought to patronize a druggist or apothecary who deals in patent and secret medicines—and report at the next annual meeting of the Association. Adopted.

"The following was offered by Dr. F. Campbell Stewart, of New York:

"*Resolved*, That the Committee on Publication be directed to have printed not less than two thousand copies of the proceedings of the late Convention, (with the Reports), and of this Association up to the period of its adjournment; and distribute the same to the members of the Association. Passed.

"After which, on motion, the Association adjourned to meet in Baltimore on the *first Tuesday* of May, 1848.

"At a meeting of the President and Vice Presidents of the "American Medical Association," held on May 8th, 1847, the following Standing Committees were appointed in pursuance of the order of the Association:

"*Committee of Arrangements*—Dr. G. C. M. Roberts, Balt., Chairman; Drs. A. C. Robinson, Balt.; J. H. Briscoe, Balt.; J. R. W. Dunbar, Balt.; Wm. Power, Balt.; W. T. Leonard, Balt.; C. Bell Gibson, Balt.

"*Committee on Medical Sciences*—Dr. S. Henry Dickson, S. C., Chairman; Drs. J. P. Jervey, S. C.; Robert Bridges, Philada.; J. W. Francis, N. Y.; Wm. T. Wragg, S. C.; Wm. Power, Balt.; T. Romeyn Beck, N. Y.

"*Committee on Practical Medicine*—Dr. Joseph M. Smith, N. Y., Chairman; Drs. René La Roche, Phila.; John Harrison, La.; H. M. Bullitt, St. Louis, Mo.; J. B. Beck, N. Y.; Isaac Wood, N. Y.; G. S. Camman, N. Y.

"*Committee on Surgery*—Dr. George W. Norris, Philada., Chairman; Drs. Isaac Parrish, Phila.; John Watson, N. Y; A. L. Peirson, Salem, Mass.; J. Randolph, Phila.; H. H. McGuire, Petersburg, Va.; C. Bell Gibson, Balt.

"*Committee on Obstetrics*—Dr. Harvey Lindsly, D. C., Chairman; Drs. G. C. M. Roberts, Balt.; J. Riley, D. C.; R. W. Haxall, Richmond, Va.; W. Channing, Boston; C. R. Gilman, N. Y.; S. Annan, Lexington, Ky.

"*Committee on Medical Literature*—Dr. Oliver Wendell Holmes, Boston, Chairman; Drs. E. Hale, Boston; G. C. Shattuck, Jr., Boston; D. Drake, Louisville, Ky.; John Bell, Phila.; Austin Flint, Buffalo; W. Selden, Norfolk, Va.

"*Committee on Medical Education*—Dr. Alexander H. Stevens, N. Y., Chairman; Drs. Amos Twitchell, Keene, N. H.; B. R. Wellford, Fredericksburg, Va.; Arnold Naudain, Phila.; R. D. Arnold, Savannah; F. Campbell Stewart, N. Y.; L. P. Bush, Wilmington, Del.

"*Committee on Publication*—Dr. Isaac Hays, Phila., Chairman; Drs. Alfred Stillé, Phila.; J. V. C. Smith, Boston; J. P. Garvin, Augusta, Ga.; J. R. W. Dunbar, Balt; Gouverneur Emerson, Phila.; Caspar Morris, Phila.

"*Committee on Indigenous Botany, under the Resolution of Dr. N. S. Davis*—Dr. N. S. Davis, Binghampton, N. Y., Chairman; Drs. S. W. Williams, Mass.; Eli Ives, Conn.; Engleman, Mo.; W. A. Cheetham, Tenn.; Jos. Carson, Pa.; Charles Short, Ky.; E. E. Phelps, Vt; A. Twitchell, N. H.; T. C. Dunn, R. I.; Lyndon H. Smith, N. J.; James Couper, Del.; A. C. Robinson, Md.; Frederick Marx, Va.; J. P. Porcher, S. C.; J. Le Conte, Ga.; Cartwright, Miss.; Carpenter, La.; John M. Bigelow, Lancaster, Ohio; G. Norwood, Ind.; Merryman, Springfield, Ill.; Russel, Detroit, Mich.; J. Riley, D. C.

"NOTE.—Dr. Hiram Corliss, a delegate from the Washington Co. (N.Y.) Medical Society, having been prevented from reaching Philadelphia until the day after the Association adjourned, signed the Constitution of the Association, and paid the assessment ordered by the Convention.

"Richard D. Arnold, Alfred Stillé, F. Campbell Stewart, *Secretaries*.

"REPORT OF THE COMMITTEE ON THE ORGANIZATION OF THE NATIONAL MEDICAL ASSOCIATION, AS ORDERED BY THE NATIONAL MEDICAL CONVENTION HELD IN THE CITY OF NEW YORK IN MAY, 1846.—The Medical Convention held in the city of New York, in May last, having resolved, 'That it is expedient for the Medical Profession of the United States to institute a National Medical Association,' and having appointed a committee of seven, consisting of Drs. John Watson, John Stearns, and F. Campbell Stewart, of the city of New York; A. Stillé, of Philadelphia; N. S. Davis, of Binghamton, N. Y.; W. H. Cogswell, of Plainfield, Conn.; and E. D. Fenner, of New Orleans, 'To report a plan of organization for such an association, at a meeting to be held at Philadelphia, on the first Wednesday in May, 1847;' the said committee, after carefully deliberating on the business entrusted to them, beg leave respectfully to report.

"*Plan of Organization for a National Medical Association.*—Whereas, the Medical Convention, held in the city of New York in May, 1846, have declared it expedient 'for the Medical Profession of the United States to institute a National Medical Association;' and,

"Inasmuch as an institution so conducted as to give frequent, united and emphatic expression to the views and aims of the Medical profession of this country, must at all times have a beneficial influence, and supply more efficient means than have hitherto been available here, for cultivating and advancing medical knowledge, for elevating the standard of medical education, for promoting the usefulness, honor, and interests of the Medical Profession; for enlightening and directing public opinion in regard to the duties, responsibilities and requirements of medical men, for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those who are engaged in it;—therefore,

"Be it resolved, in behalf of the Medical Profession of the United States,—that the members of the Medical Convention held in Philadelphia, in May, 1847, and all others who, in pursuit of the objects above-mentioned, are to unite with, or succeed them, constitute a National Medical Association;—and that, for the organization and management of the same, they adopt the following regulations.

"I. *Title of the Association.*—This institution shall be known and distinguished by the name and title of 'The American Medical Association.'

"II. *Members.*—The members of this institution shall collectively represent and have cognizance of the common interests of the medical profession in every part of the United States; and shall hold their appointment to membership either as delegates from local institutions, as members by invitation, or as permanent members.

" *The Delegates* shall receive the appointment from permanently organized medical societies, medical colleges, hospitals, lunatic asylums, and other permanently organized medical institutions of good standing, in the United States. Each delegate shall hold his appointment for one year, and until another is appointed to succeed him, and shall participate in all the business and affairs of the association.

" Each local society shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half of this number. The faculty of every regularly-constituted medical college or chartered school of medicine, shall have the previlege of sending two delegates. The professional staff of every chartered and municipal hospital containing a hundred inmates or more, shall have the privilege of sending two delegates; and every other permanently organized medical institution of good standing shall have the privilege of sending one delegate.

" *The Members by invitation* shall consist of practitioners of reputable standing, from sections of the United States not otherwise represented at the meeting. They shall receive their appointment by invitation of the meeting after an introduction from any of the members present, or from any of the absent permanent members. They shall hold their connection with the association until the close of the annual session at which they are received; and shall be entitled to participate in all its affairs, as in the case of delegates.

" *The Permanent Members* shall consist of all those who have served in the capacity of delegates, and of such other members as may receive the appointment by unanimous vote.

" Permanent members shall at all times be entitled to attend the meetings, and participate in the affairs of the association, so long as they shall continue to conform to its regulations; and when not in attendance, they shall be authorized to grant letters of introduction to reputable practitioners of medicine residing in their vicinity, who may wish to participate in the business of the meetings, as provided for members by invitation.

" Every member elect, prior to the permanent organization of the annual meeting, or before voting for any question after the meeting has been organized, must sign these regulations, inscribing his name and address in full, specifying in what capacity he attends, and, if a delegate, the title of the institution from which he has received his appointment.

" III. *Meetings.*—The regular meetings of the Association shall be held annually, and commence on the second Tuesday of May. The place of meeting shall never be the same for any two years in succession, and shall be determined for each next succeeding year by a vote of the Association.

" IV. *Officers.*—The officers of the Association shall be a President, four Vice Presidents, two Secretaries, and a Treasurer. They shall be nominated by a special committee of one member from each State represented at the meeting, and shall be elected by vote on general ticket. Each officer shall hold his appointment for one year, and until another is elected to succeed him.

" *The President* shall preside at the meetings, preserve order and decorum in debate, give a casting vote when necessary, and perform all the other duties that custom and parliamentary usage may require.

" *The Vice Presidents*, when called upon, shall assist the President in the performance of his duties, and, during the absence, or at the request of the president, one of them shall officiate in his place.

" *The Secretaries* shall record the minutes, and authenticate the proceedings, give due notice of the time and place of each next ensuing annual meeting, and serve as members of the Committee on Publication. The Secretary first in nomination shall also preserve the archives and unpublished transactions of the Association.

" *The Treasurer* shall have the immediate charge and management of the funds and property of the Association. He shall be a member of the Committee on Publication, to which committee he shall give bonds for the safe keeping, and proper use, and disposal of his trust. And through the same committee he shall present his accounts, duly authenticated, at every regular meeting.

" V. *Standing Committees.*—The following Standing Committees, each composed of seven members, shall be organized at every annual meeting, for preparing, arranging, and expediting business for each next ensuing year, and for carrying into effect the orders of the Association not otherwise assigned—namely, a Committee on arrangements, a Committee on Medical Sciences, a Committee on Practical Medicine, a Committee on Surgery, a Committee on Obstetrics, a Commitee on Medical Education, a Committee on Medical Lite-erature, and a Committee on Publication.

" *The Committee on Arrangements* shall, if no sufficient reasons prevent, be mainly composed of members residing in the place at which the Association is to hold its next annual meeting; and shall be required to provide suitable accommodations for the meeting, to verify and report upon the credentials of membership, to receive and announce all essays and memoirs voluntarily communicated, either by members of the Association, or by others through them, and to determine the order in which such papers are to be read and considered.

" *The Committee of Medical Sciences* shall prepare an annual report on the progress of the Medical Sciences in America, noticing, as occasion may require, the more important improvements and discoveries in Anatomy, Physiology, Hygiene, General Pathology and Therapeutics, Medical Jurisprudence, Materia Medica, and other branches of natural science, bearing directly on the condition and progress of Medical knowledge in America, during the year of their service.

" *The Committee on Practical Medicine* shall prepare an annual report on the more important improvements effected in this country in the management of individual diseases; and on the progress of epidemics: referring as occasion requires, to medical topography, and to the character of prevailing diseases in special localities, or in the United States generally, during the term of their service.

" *The Committee on Surgery* shall prepare an annual report on all the important improvements in the management of surgical diseases effected in America during the year.

" *The Committee on Obstetrics* shall prepare an annual report on all the important improvements in the Obstetric Art, and in the management of diseases peculiar to women and children, effected in America during the year.

" *The Committee on Medical Education* shall prepare an annual report on the general condition of medical education of the United States, in comparison with the state of medical education in other enlightened nations; noticing, as occasion may call for, the courses of instruction, the practical requirements for graduation, the modes of examination for conferring degrees, and the reputed number of pupils and graduates at the several medical institutions in the United States, during the year:—noticing also the requirements of the United States Army and Navy Boards of Medical Examiners, the legal requirements exacted of medical practitioners in our several States, and all such measures, prospective or established, in reference to medical education and the reputable standing of the profession, as may be deemed worthy of special consideration.

" *The Committee on Medical Literature* shall prepare an annual report on the general character of the periodical medical publications in the United States, in reference to the more important articles therein presented to the Profession, on original American medical publications, on medical compilations and compends by American writers, on American reprints of foreign medical works, and on all such measures as may be deemed advisable for encouraging and maintaining a national literature of our own.

" *The Committee on Publication,* of which the Secretaries and Treasurer must constitute a part, shall have charge of preparing for the press, and of publishing and distributing such of the proceedings, transactions and memoirs of the Association, as may be ordered to be published. The six members of this Committee, who have not the immediate management of the funds, shall also in their own names as agents for the Association, hold the bond of the Treasurer for the faithful execution of his office, and shall annually audit and authenticate his accounts, and present a statement of the same in the annual report of the Committee; which report shall also specify the character and cost of the publications of the Association during the year, the number of copies still at the disposal of the meeting, the funds on hand for further operations, and the probable amount of the Assessment to be laid on each member of the Association for covering its annual expenditures.

" VI. *Funds and Appropriations.*—Funds shall be raised by the Association for meeting its current expenses and awards from year to year, but never with the view of creating a permanent income for investments. Funds may be obtained by an equal assessment of not more than three dollars annually on each of the members; by individual voluntary contributions for specific objects; and by the sale and disposal of publications, or of works prepared for publication.

" The funds may be appropriated for defraying the expenses of the annual meetings; for publishing the proceedings, memoirs, and transactions of the Association; for enabling the standing committees to fulfil their respective duties, conduct their correspondence, and procure the materials necessary for the completion of their stated annual reports; for the encouragement of scientific investigations, by prices and awards of merit; and for defraying the expenses incidental to specific investigations, under the instruction of the Association, where such investigations have been accompanied with an order on the treasurer to supply the funds necessary for carrying them into effect.

" VII. *Provision for Amendments.*—No amendment or alteration shall be made in any of these articles, except at the annual meeting next subsequent to that at which such amendment or alteration may have been proposed; and then only by the voice of three-fourths of all the members in attendance.

" And in acknowledgment of having adopted the foregoing propositions, and of our willingness to abide by them, and use our endeavors to carry into effect the objects of this Association, as above set forth,—we have hereunto affixed our names.

" In connection with the foregoing 'Plan of Organization,' the committee beg leave further to report the following as one of the ordinances, or by-laws of the proposed Association, viz :—The Order of Business

" The order of business at the annual meetings of the American Medical Association shall at all times be subject to the vote of three-fourths of all the members in attendance; and until permanently altered, except when for a time suspended, it shall be as follows, viz.:

" 1. The temporary organization of the meeting preparatory to the election of officers.

" 2. The report of the Committee of Arrangements on the credentials of members; after the latter have registered their names and addresses, and the titles of the institutions which they represent.

" 3. The calling of the roll.

" 4. The election of officers.

" 5. The reading of minutes.

" 6. The reception of members not present at the opening of the meeting, and the reading of notes from absentees.

" 7. The reception of members by invitation.

" 8. The reading and consideration of the stated annual reports from the standing committees.

" 9. The selection of the next place of annual meeting.

" 10. The new appointments to fill the standing committees.

"11. The choice of permanent members by vote.

"12. Resolutions introducing new business, and instructions to the permanent committees.

"13. The reading and discussion of voluntary communications introduced through the committee on arrangements.

"14. Unfinished and miscellaneous business.

"15. Adjournment.

"Before bringing this report to a close, the committee beg leave to remark, that in preparing the foregoing 'plan of organization,' and 'ordinance' accompanying it, they have constantly had in view, as worthy of imitation, the plan of organization and order of business adopted without any previous concert of action, by the Medical Convention of 1846.

"The plan here presented, differs from the mode of organization adopted by the late Convention, principally in such points as are necessary to give permanency and influence to the proposed Association. It is believed to be sufficiently simple and at the same time sufficiently comprehensive and practicable, for organizing the whole of the Medical Profession of the United States into a permanent body; and for carrying into effect all the objects contemplated in the formation of a National Medical Association.

"All of which is respectfully submitted.

"John Watson, John Stearns, F. Campbell Stewart, Alfred Stillé, N. S. Davis, E. D. Jenner (by the Chairman.")

"Report of the Committee appointed under the fourth Resolution of the National Medical Convention, assembled in New York, May, 1846.—*Resolved*,—That it is desirable that a uniform and elevated standard of requirements for the degree of M. D., should be adopted by all the Medical Schools in the United States; and that a committee of seven be appointed to report on this subject, at a meeting to be held in Philadelphia on the first Wednesday in May, 1847.

"*Committee.*—Drs. Haxall, Cullen, of Richmond; S. A. Patteson, Manchester, Va.; A. Flint, Buffalo, N. Y.; J. Perkins, Castleton, Vt.; J. A. Wing, Albany, N. Y.; George W. Norris, Philadelphia.

"The committee under the fourth resolution of the convention which assembled in New York in May, 1846, and which has for its object the adoption of a uniform and elevated standard of requirements for the degree of M. D., have had the same under consideration, and beg leave to offer the following *Report*:—

"The excitement which appears to have pervaded the medical mind for some considerable time in relation to the subject of reform, not only in this but in foreign countries, would of itself present an argument sufficiently demonstrative of its importance.

"The ceaseless and unwearied exertions of the master-minds of the profession, constantly urging on improvement in the various departments of medicine, have elaborated a work which it will require years of toilsome study justly to appreciate; and while we are far from indulging the Utopian idea that the newly graduated student is to be immediately transformed into the accomplished physician, yet do we believe from the complaints which spring from almost every quarter, that lamentable deficiencies do exist, and that these deficiencies should be corrected.

"Nor do we stand alone in this opinion. The same spirit of reform which has assembled this convention, produced in Great Britain amendments to the charters of her Colleges, and convoked the Medical Congress which sat in Paris, than which a more renowned body of men never met to deliberate upon the interests of the profession. Not a great deal, it is true, has yet been accomplished in Great Britain, owing to the influence still exercised by medical corporations, and the indifference with which Parliament has regarded the efforts of the reformers. But in enlightened France, protected and cherished as are all her literary institutions by government, the most propitious results have been obtained. The term of study has been prolonged; other branches of medical education have been added to the already extensive curriculum, and more frequent and rigid examinations have been adopted by which to test the qualification of the candidate.

"And when we consider the existing systems of other countries, how vast a difference is manifested upon the most cursory examination; truly must it be acknowledged that the mass of our medical graduates is inferior to those of other climes, or that the talent of America, like its broad and impetuous rivers, or its majestic forests, can recognize no equality in others.

"We are free to confess that within the last twenty or five-and-twenty years, medicine has been better taught among us than at any former period. It is difficult to imagine, indeed, that the progressive efforts of foreign lands should pass wholly unnoticed in this: and, while their example has been productive of some improvement, much yet remains to be accomplished. It is unquestioned that the facilities for education have been augmented not only in the public schools of the country, but private enterprise has exerted no slight influence in the attainment of this end. But let us not remain stationary while the interests of society and the profession impel us to further advancement.

"If we discard the preliminary education demanded of students in Europe, and confine our attention to the branches actually taught in the medical schools, it will be perceived that the deficiency on our part is sufficiently apparent. All the branches which we profess to teach are taught by them; in addition to which (and we now refer more particularly to continental institutions) we may enumerate the several subjects of Zoology, Botany, Comparative Anatomy, the History of Medicine, Hygiene, Medical Physics, and Clinical Medicine and Surgery. All these branches, it is true, are not crowded upon the mind during a single session, but are distributed throughout successive years; while clinical instruction, in both medicine and surgery, is reserved for the last year or two, after it is presumed the student has made such advances in his primary studies as will enable him perfectly to understand the lessons which are taught him at the bedside of the patient.

"Instruction so full and so complete must of necessity require a lengthened period for its accomplishment; hence we find that, in France and Austria, the term of lectures is extended to a fraction more than four years; in Germany to three years and four months; in Great Britain to two years, while in the schools of our own country, two sessions of four months each are alone sufficient to entitle the candidate to an examination. And if we extend our inquiries a step further, we shall find as great a contrast in regard to the examinations by which the qualifications of candidates are tested. Nowhere, we believe, except in England and America, is the qualification made to rest upon a single viva-voce examination; but throughout the period of the student's probation, repeated examinations are held at stated intervals. By proceeding in this manner, not only is the qualification more accurately ascertained, but certain branches are completely mastered before others have been commenced. Thus we learn from Mr. Surgeon Wilde's work on Austria and her Institutions, that, at Vienna, the student is compelled to undergo an examination at the end of every six months by each professor whose lectures he may have attended. During the fifth year, which completes his term of study, he is subjected to two other examinations, besides giving a detailed history of two or more clinical cases, and defending in public a thesis written in the Latin language. In Prussia, four examinations are required. When the pupil has satisfactorily completed the third, the honors of the Doctorate are conferred upon him; but he is not yet permitted to enter upon the practice of his profession. To enjoy this privilege, a more rigid ordeal must be passed; he is now called upon to demonstrate his *practical* acquaintance with the several subjects in which he has been instructed; take charge of patients under the immediate inspection of his teachers, and is finally questioned by eight of the most distinguished professors of the country in every department of the science. By a recent decree of the University of France, it is now ordered that examinations shall be held at the termination of each year upon the branches which have been taught during the year; at the conclusion of the whole term of study, a final examination is instituted, embracing the subjects taught throughout the whole course. A knowledge of clinical medicine and surgery is also required, and a thesis must be publicly defended.

"Although thus rapidly and most imperfectly enumerated, we have thought it not inappropriate to the subject to mention the requisitions which are demanded in foreign schools. They either exact of their pupils an unnecessary standard of requirements, or we, on the contrary, are satisfied with too low a grade of qualification. Which alternative is this convention prepared to adopt? Are we willing to assert, and maintain the opinion that he who has passed eight months within the walls of a medical college is as well fitted for the practical duties of his profession, as he who has devoted years to more extended studies? Assuredly we cannot advocate a proposition so absurd. Nor, perhaps, is it at all requisito to occupy the time of the convention with a long detail of arguments in order to prove the *necessity* of some measures of reform.

"In regard to the two subjects of preliminary education and the mode of examination, this committee has nothing to do. But heing charged with the duty of reporting upon a uniform and elevated standard of requirements for the degree of M. D., whatever alteration in the present system it may recommend, will more immediately bear upon the interests of the school. Yet let it not be supposed, as some we fear have imagined, that the object of this Committee, or of this Convention, is to attack with a ruthless hand the institutions of the country, rendered venerable by time, or that still larger number whose charters have been obtained at a more recent date. We believe that no agrarian feeling has stimulated to action the advocates of reform in this or any other land; we dare express the conviction that the best interests of society and of the profession itself (which spring from no selfish considerations), could alone have commenced a work, which, if calmly and perseveringly conducted, must redound to the good of all.

"We are aware that many obstacles are opposed to the successful prosecution of the several matters upon which we have assembled to deliberate. With no National Legislature to regulate our Medical Institutions, and with a reckless indifference to their concerns too often practised by our State Governments, each has endeavored to build up for itself, if not an enduring reputation, at least a long catalogue of names. And the colleges themselves resting secure in their chartered rights, may contend against any interference with their several systems of education; although we would fain indulge the hope that some among them stand prepared to listen to that voice which rarely speaks in vain—the voice of public opinion. This it is which now agitates the professional mind from one end of this Union to the other; and this it is which, if not now heeded, will not cease to reiterate its cry. Let but a very few even of our conspicuous institutions demand of their pupils a more extended course of study, and so far from their interests perishing in the attempt we cannot doubt that an accession to their numbers will ere long reward their efforts. The possession of the diploma no longer tests the qualification of the man; and it cannot be doubted that the large number of Medical Colleges throughout the country, and the facility with which the degree is obtained, have exerted a most pernicious influence. Numbers of young men have entered the profession who were not prepared for its onerous and responsible duties, who, after a longer or shorter period of disappointment, have served to swell the list of empirics, or to seek employment by means unbecoming the character of the physician or the gentleman. Nor can it well be otherwise, when each returning spring lets loose upon the community some twelve or thirteen hundred graduates, whose professional existence must depend upon the encouragement they receive.

"To correct these evils it is indispensable that the standard both of preliminary and of medical education should be elevated; and as we have said before, let no institution fear to commence the laudable undertaking. The encouraging plaudits of the profession will cheer it on, and its general voice will direct our medical students to that source of information from which is to be derived the largest supply. We are, moreover, unwilling to inflict such discredit upon the ingenuous youth of the land as to imagine, that they would not voluntarily become the pupils of that school whose diploma is to be gained by a more prolonged and complete course of study. They will feel that their success in after life will mainly depend upon the labors of their earlier years; and when success shall crown their efforts, they will enjoy the proud satisfaction of knowing that it is based, not upon the disgraceful trickery of the impostor, but upon the solid foundation of positive acquirement.

"It may not, perhaps, be wandering too far from our legitimate course to remark, that no ordinary responsibility rests upon Professors themselves. They stand as the guardians more than any others of the public weal; for every student who receives the diploma, is furnished by them with *prima facie* evidence, that he is prepared for that important occupation in which he seeks to engage. And if we admit the supposition that in any case he is not thus prepared, it will require the prediction of no seer to foretell the lamentable result. We believe the opinion defensible, that in no profession is it more difficult to arrive at just conclusions, as to real merit, than in that of medicine. 'And hence (in the language of another) there devolves upon those who are most competent to judge, and who have the best opportunity for judging, a vast responsibility to see well to it that none but the truly meritorious should be admitted to the profession under their sanction. From the fact that society cannot in this respect adequately protect itself, the teachers in our Medical Schools should exercise a guardianship the more watchful, a jealousy the more keen, and a firmness the more unyielding.' With a determination thus expressed, to furnish the community with individuals who have gained the honors of the doctorate solely on account of their merit, it cannot be saying too much when we assert that a reciprocal duty rests upon it; a duty which should ever lead to the protection and encouragement of those who have devoted their time and talents to its dearest interests.

"The most beneficial consequences may be expected from the efforts of private Preceptors. The position can scarcely be controverted, that a proper inquiry into the fitness of young men to become Students of Medicine is but seldom instituted; and numbers have been admitted into the offices of their Preceptors who were deficient even in the most common branches of an English education. Too long has it been imagined, and too often has it been asserted, that the veriest dolts possessed intellect sufficient for the study of medicine. To such the idea could never have occurred, that within its broad and expanded limits may be profitably included a knowledge of almost every science; nay, more, may we not truly say that a high and exalted position can never be attained, unless the mind be well stored with an amount of collateral information which will be found to bear upon our professional studies at every step?

"There is another point in which the preceptor sometimes fails to do his duty. We are too often satisfied with merely placing the most approved authors, if you please, in the hands of our pupils, without instituting a regular series of examinations and explanations, in default of which the impressions produced by reading are frequently evanescent, if not erroneous. The inexperienced mind of the student requires so to be regulated in its pursuits, that each successive link in the chain of information may be properly adjusted; by which arrangement not only is much economy of time and labor secured, but the field of knowledge is thus gradually expanded before him, until finally he is brought to comprehend its whole area in all its uniformity and beauty. Let us then exercise a jealous watchfulness over our pupils in these particulars; let us remand to academical teachings the individual who has neglected the rudiments of a common education, and let us feel that we have not rightly earned our fees of tuition, unless we shall have honestly labored to advance the student's interests by all the means in our power.

"In entering upon the principal purport of this report, it is deemed advisable to remark, that in order to obtain a knowledge of the requirements demanded by the various schools of the country, a letter was addressed to all whose existence was known to your committee, requesting them to furnish the desired information. These consisted of thirty-three in number; and answers were received from nineteen, being a fraction more than one-half. In the majority of instances pamphlets were forwarded to the chairman, containing the rules and regulations of the college, together with the branches taught; while from others, letters were received simply stating that two full courses of lectures were demanded, that the candidates must be twenty-one years of age, of good moral character, &c. From this correspondence but little available information was derived. A circular was then dispatched to the different colleges propounding the following questions, answers to which were respectfully solicited. Nineteen of these circulars were filled up and returned.

"State 1*st.* The number of students during the session of 1845–6.
2*d.* The number of graduates in 1845–6.
3*d* The number of charity pupils in 1845–6.
4*th.* The number of professors attached to your school.
5*th.* The date at which lectures begin and end.
6*th.* The requirements for a degree.
7*th.* Is the inquiry made previous to examination, whether or not these requirements are fulfilled?
8*th.* Is any evidence of having attended a course of clinical instruction necessary to graduation?
9*th.* Is it required of candidates for graduation that they shall have devoted any time to dissection?

"The responses to these several questions have been arranged in tabular form, from which the result of the whole correspondence may be ascertained at a glance, and which your committee beg leave to lay before this Convention, as a part of this report. We cannot avoid the expression of our regret, that so many of the colleges have failed to respond to our circular, not, we hope, from a listless indifference to the subject, or a determination not to abide by the recommendations of this body. Information was also requested from the proper authorities in regard to the requirements of surgeons in the army and navy of the United States; but no reply has been received from them. (See Note A)

"In summing up the information obtained from the nineteen colleges named in the table, in the order in which the questions were proposed, it will be found that the number of students belonging to these institutions during the session of 1845–6, amounted to 2,544, including 31 non-paying pupils; and that the number of graduates was 730;—the number of professors varies from *three* to *eight.* It may be proper to remark that the lowest number here named is attached to the University of Virginia, where the usual branches of medical education are taught, and where the term of study extends throughout the period of *nine* months. If we exlude this institution from our table, the minimum is *five* and the maximum is *eight.* The time employed in lecturing also varies; *thirteen* weeks being the shortest, and *eighteen* the longest period. *Sixteen* weeks, however, are devoted to the lectures, in a large majority of the schools. The requirements for the degree of M. D. appear to be very general:—the candidate must be twenty-one years of age; his moral character good; his examination satisfactory; his thesis passable, and he must have attended two full courses of lectures, to be included within the period of three years' study. In some of the schools a practice of four years and an attendance on one course of lectures, is sufficient to entitle the individual to an examination. Branches are taught in some institutions which are omitted in others, and the manner in which these are distributed is by no means uniform. It appears without exception that the inquiry is made previous to examination whether or not all the requirements have been fulfilled, and in some cases unquestionable proof of the fact must be adduced. Evidence of having attended a course of clinical instruction is required in *twelve* of the colleges, while in *seven* it is not; and as to dissection, *five* render it obligatory, and the remaining *fourteen* are content to urge its recommendation.

" Such, then, is the information which the committee, after diligent inquiry, is enabled to lay before this body. It would have been a matter of some importance to have received answers from all the schools, for in that case an account entirely accurate of the whole number of students in the United States would have been obtained. (See Note B.) It will be seen that the nineteen colleges which noticed our circular, report the aggregate number to be 2,544 ; and if it be proper to assign the same ratio to the fourteen which did not, the whole number of students during the session of 1846–6, will be found to be 4,418 and a fraction. We believe this to be a very fair statement, for several statistical tables published from time to time in the journals, have varied but little from this amount; and if we extend the same rule to the classes of graduates, we reach the conclusion that a fraction less than 1300 were added to the already existing number of physicians, in the spring of 1846.

" The very large number of physicians in the United States, a number far larger in proportion to its population than in any other country perhaps of which we have a correct knowledge, has frequently been the subject of remark. To relieve the diseases of something more than twenty millions of people, we have an army of Doctors amounting by a recent computation to forty thousand, which allows one to about every five hundred inhabitants. And if we add to the 40,000 the long list of irregular practitioners who swarm like locusts in every part of the country, the proportion of patients will be still further reduced. No wonder, then, that the profession of medicine has measurably ceased to occupy the elevated position which once it did ; no wonder that the merest pittance in the way of remuneration is scantily doled out even to the most industrious in our ranks,—and no wonder that the intention, at one time correct and honest, will occasionally succumb to the cravings of hard necessity. The evil must be corrected. With a government like ours, to diminish the number of medical schools is not to be expected ; and the corrective can alone be found in the adoption of such a standard of requirement, in the general estimate of which the recommendations of this committee will form but an item, as will place the diploma beyond the reach of those who seek to wear its honors without deserving them.

" The shortness of the time allotted to the delivery of Lectures, we believe to be an evil of no small magnitude. It is next to an impossibility, that the strongest intellect can receive and well digest some half a dozen discourses or more a day, embracing subjects which have oftentimes little or no immediate connection with each other. The mind becomes wearied with the multiplicity of its occupations, and the thoughts of to-day are forgotten in the constantly recurring and harassing duties of the morrow. A proper allotment of time cannot be given to that deep reflection which the importance of the subject demands, and without which no solid advancement can be made. There are individuals, too, who do not always rest satisfied with professional prelections, who approve in its fullest extent the adage, " nullius addictus jurare in verba magistri," and who seek in the recorded experience of others the widest extent of information. Nor can teachers themselves, with every disposition to impart the fullest instruction, do justice to their several branches within the limited period of four months. For this reason, the examination which may, indeed, test the actual acquirement of the student, can never embrace an extensive field of knowledge. Under the present regulation this cannot be expected ; for justice to the pupil must prevent an inquiry into subjects in which he has never been instructed.

" In regard to the branches to be taught, it is not improbable that the recommendation of the Committee may not meet the views of some of the members of this Convention. It may be thought that others should have been added, and that consequently the number of Professors should have been considerably augmented. This subject was freely canvassed by the Committee, and the opinion was general that in the commencement of our effort to reform the existing condition of things, too high a standard of requirement ought not to be immediately insisted on. The conclusions to which this Convention may come upon any subject, cannot be forced upon the schools contrary to their wishes. In the advice of this body there exists, however, a moral power which it would be unwise to disregard, a power which, while it seeks to elevate medical requirement, should not impose a single requisition which is not entirely practicable. Besides, it is to be recollected that the decrees of this Convention need not be final and unalterable. The National Medical Association, contemplated under the first two resolutions adopted at the meeting in May last, which it is to be hoped will convene from time to time in different parts of the country, can legitimately exercise the same influence which we now seek to do; and when in after time it may be deemed advisable to add new subjects of instruction, it will not hesitate to express its opinion. Under this view of the matter, your Committee advise that lectures be given on the following branches, in all the Colleges, viz.: on the Theory and Practice of Medicine; the Principles and Practice of Surgery; General and Special Anatomy; Physiology and Pathology; Materia Medica; Therapeutics and Pharmacy; Midwifery, and Diseases of Women and Children; Chemistry and Medical Jurisprudence.

"These subjects, it is true, are now taught in a majority of our schools. With a lengthened period for teaching, a double advantage will be gained; a wider extent of information may be imparted to the student, while his time will be occupied with fewer lectures during the day. As to the appropriation of the several branches, it is deemed inexpedient to make any suggestion, as the circumstances of each Institution may be such as will necessarily lead to a different arrangement in this particular. It is believed, however, that a slight augmentation in the number of Professors will become necessary.

"In regard to clinical instruction, your Committee would willingly have made it a requisition to the attainment of the diploma; but an insuperable difficulty seemed to exist. It is believed that few of the Colleges have Hospitals attached to them, and in very many instances where such Institutions exist in cities, the Professors do not receive the appointment of attending Physicians and Surgeons. Consequently, the opportunity is lost to them of imparting such instruction as would be valuable to the student.

"We cannot, however, close this portion of our report, without urging the very great importance of clinical instruction. Many a young man has entered upon the duties of his profession, sufficiently instructed, it may be, in its principles, who has most painfully felt the responsibility of his position. In default of a certain degree of practical knowledge, indecision must often fetter his efforts to the detriment of his patient, and that self-confidence, which can alone restore serenity to his mind, must be purchased by a long period of perplexing doubt. During the pupilage of the student, he should lose no opportunity of witnessing cases of disease wherever they are to be found. Instructors themselves, should esteem it their highest duty to introduce their pupils to the bedside of their patients in all cases where propriety will admit of it. The Hospitals, Penitentiaries, and Poor-houses, found in so many of our towns and cities, will furnish from time to time, cases of every description, while the pauper practice of the country will prove no indifferent means of imparting clinical information. Instruction gained from these sources in free and familiar conversation with the Preceptor, will perhaps be of more avail than any other; for the large number of Students who occasionally throng the wards of the Hospital, render it impossible for each one to obtain a correct knowledge of the cases presented to him. We do not intend by this remark to convey the idea that information given in this way would be valueless. On the contrary, when properly conducted, it may be made productive of the greatest good. Let the Professor daily analyze the symptoms which arise in every case; have them carefully noted down in his ward-book, together with his prescriptions, and at its termination let him review the whole ground, aided by a post mortem examination if it result unfavorably, and he will impart instruction which is truly valuable.

"By reference to the table accompanying this report, it will be seen that only five of the colleges insist upon dissection as a requisite to graduation. Your committee accord in the opinion, that all should render it obligatory upon the student to devote some portion of his time to this needful pursuit To enter into an argument to prove its absolute necessity not only to the surgeon but also to the physician, would be a work of supererogation. We therefore offer without further remark, the following resolutions for the adoption of this Convention :

" *Resolved*, 1st. That it be recommended to all the colleges to extend the period employed in lecturing, from four to six months.

" 2d. That no student shall become a candidate for the degree of M. D. unless he shall have devoted three entire years to the study of medicine, including the time allotted to attendance upon the lectures.

" 3d. That the candidate shall have attended two full courses of lectures, that he shall be twenty-one years of age, and in all cases shall produce the certificate of his preceptor, to prove when he commenced his studies.

" 4th. That the certificate of no preceptor shall be received who is avowedly and notoriously an irregular practitioner, whether he shall possess the degree of M. D. or not.

" 5th. That the several branches of medical education already named in the body of this report, be taught in all the colleges ; that not less than one hundred lectures be delivered by each Professor, and that the number of Professors be increased to seven.

" 6th. That it be required of candidates that they shall have *steadily* devoted three months to dissections.

" 7th. That it is incumbent upon Preceptors to avail themselves of every opportunity to impart clinical instruction to their pupils ; and upon Professors to connect themselves with Hospitals whenever it can be accomplished, for the advancement of the same end.

" 8th. That it is incumbent upon all schools and colleges granting diplomas, fully to carry out the above requisitions.

" 9th. That it be considered the duty of Preceptors, to advise their students to attend only such institutions as shall rigidly adhere to the recommendations herein contained.

" All which is most respectfully submitted.

" RO. W. HAXALL, *Chairman*.

" *May*, 1847."

" NOTE A.—After finishing this report, a communication was received from H. L. Heiskill, acting surgeon-general, in answer to the letter addressed to the surgeon-general late in May, 1846.

" The absence of this officer from the seat of government prevented an earlier reply. Such portions of said communication as have reference to the subject-matter of this report, your committee have thought proper to embody in this note. Many of the duties required of army surgeons are of course not performed by practitioners in civil life.

" ' Under the regulations the medical officer is required to investigate the physical agents that may affect the health of the troops, to make reports upon the medical topography of his station, to aid in the selection of military positions, and as a question of military hygiene, to express his views in respect to the diet, clothing, watering, and exercises of the troops. He is from the necessity of the case a *general practitioner* in the most extended sense of the term, and from location he is often thrown entirely upon his own resources and deprived of the advantage of calling to his aid the friendly counsel of professional brethren.'

" ' Nor have the army medical officers been regardless of the high claims of medicine in itself as one of the *liberal* professions. Themselves medical men, they feel a deep interest in the character of the profession, and rejoice in any measure that would tend to promote its honor and efficiency.'

" Next follows a table showing the number of applicants examined from the year 1841 to 1845, both inclusive, being a period of five years. It here appears that 51 were examined, while only 17 were approved.

"'The most striking causes of failure on the part of the candidates are, *insufficient preparatory education; a hurried course of professional pupilage; want of proficiency in practical anatomy*, in *pathology*, and in *clinical medicine*.'

"'The candidates are examined on the branches usually taught in our medical schools, also on their literary and scientific attainments, embracing a grammatical knowledge of the English language, Latin, and natural philosophy, (or physics), which are deemed important branches of education to those entering on the study of a *liberal* profession. Each candidate is required, as introductory to his examination, to prepare in writing a brief extemporaneous description of the causes, symptoms, pathology, treatment, &c., of such disease as may be assigned by the Board, together with one or more prescriptions proper in the case, written out in form for the apothecary.'

"A merit roll accompanies the communication, which shows the branches upon which the applicants are examined. These are as follows: 'Literary and Scientific qualifications, Anatomy and Physiology, Principles and Practice of Surgery, Principles and Practice of Medicine, Obstetrics, Materia Medica, Chemistry, and Medical Jurisprudence.'

"'In the several branches herein enumerated, the candidate is required to be well-grounded. The examinations are conducted with the view of ascertaining the measure of his natural endowments, his general professional intelligence, as well as his exact knowledge, his practical ability and strength of judgment.'

"Note B.—The Chairman received the reply of the Indiana Medical College, located at Laporte, on the Thursday before leaving home;—too late to be inserted in the table which had then been completed. In 1845–6, it had 81 students, 18 graduates and 6 Professors."

For the Table accompanying this Report, see next number of the Jour. of Med.

Report on separating Teaching and Licensing.

"*Report.—The Committee to whom was referred the following Resolution, passed at the Medical Convention, held in the City of New-York, in May*, 1846, *viz.*—*Resolved*, That the union of the business of teaching and licensing in the same hands is wrong in principle, and liable to great abuse in practice. Instead of conferring the right to license on medical colleges, and State and county medical societies, it should be restricted to one board in each State, composed in fair proportion of representatives from its medical colleges and the profession at large, and the pay for whose examiners should in no way depend on the number licensed by them—Respectfully report:—

"That they have carefully considered the resolution referred to them, and submit the result of their deliberation to the consideration of this Convention.

"The resolution embraces two distinct subjects, each of which requires separate examination and discussion. *First*, It is stated that the union of the business of teaching and licensing is wrong in principle, and liable to great abuse in practice. There can be no question that the union of the business of teaching and licensing, is liable to a great abuse in practice, like the performance of all other important duties which devolve upon so fallible a being as man; but it is not quite so clear, or admits so readily of demonstration, that such union is wrong in principle. On the contrary, it would, at first sight, seem most natural to conclude, that those appointed to give instruction in the several branches, which constitute a suitable medical education, would be the best qualified to judge what proficiency the candidate for license had made, and whether he was qualified to practise or not. In this Convention it is believed that there will exist no difference of opinion, in relation to the abstract question, of the fitness of the teachers to judge of the qualifications of candidates for licenses or degrees. It will probably be admitted, that, taking teachers as a body, they are at least as well qualified to conduct the examinations, and to judge of the fitness or unfitness of candidates to be invested with the privileges of the profession, as any other class of practitioners. If this be conceded, it must also be conceded, that it is not wrong in principle, or morally wrong, to unite teaching and licensing in the same hands. Then if it be not wrong in principle, is it inexpedient to unite the two powers, because their union is liable to great abuse in practice? What are the abuses complained of, which in the estimation of so many respectable members of the profession, call for a separation, to effect which, such sweeping changes are proposed to be made in the organization of our Medical Societies and Medical Colleges?

"The abuse most loudly complained of, is, that in consequence of the great multiplication of medical schools in the United States, there exists such a competition for students, such a desire to have a long catalogue of names, and a goodly list of graduates, that almost every person who has gone through the prescribed course is allowed to pass, and that thus the people are imposed upon, and the character of the profession degraded. It cannot be denied, that there is too much truth in this charge, and too much ground for complaint. In perhaps every Medical School in the Union, the requirements for degrees are too low, and the honor, if such it may be called, is too unsparingly bestowed. But is it the fault of the colleges altogether that the requirements are so low? Has the profession thus far united in calling for higher attainments? The great complaint is that *some colleges* do not enforce rigidly and honestly the existing legal requirements, low as they are. There is reason to believe, that some of the oldest and most flourishing schools are as open to this charge as the obscure and comparatively unimportant ones. Hence much of the strong feeling now existing against all colleges in the profession. But while some institutions enforce all the existing legal requirements in good faith, is it just to involve them in the same indiscriminate condemnation with those which abuse their privileges? The best remedy for the evil, the Committee are inclined to think, is, to establish a more uniform and a more elevated standard of requirements in the several colleges for the doctorate, and to introduce into the board of examiners in such colleges, as do not already possess such a check, a sufficient number of gentlemen of the profession, not engaged in teaching, to insure that the requirements will be honestly enforced in every case.

"For the present, at all events, it is deemed more prudent to reform the boards we have, than try the experiment of creating new ones—a reform is required, but not a revolution.

"Another complaint is, that the pupils of teachers meet with more favor than others, and are allowed to pass, even when unqualified. There may be such cases; but this is a minor evil. It would be difficult to find a board of examiners, where favoritism would not, now and then, find access. Another ground of objection, rather insinuated than openly advanced, is, that the examiners may be influenced by the fees received for the degree or license, to pass persons they would otherwise reject. Most of the members of this committee have long been members of boards of examiners, and not feeling conscious of having, on any occasion, been influenced by such grovelling considerations themselves, are, therefore, unwilling to believe, without the most positive proof, that such a charge, against professors, or censors, is well founded, or entitled to any consideration from this Convention If it be true, that the above-mentioned are the principal objections to the mode at present in use, to obtain licenses and degrees in medicine, (and they are almost the only ones the committee have heard suggested), it would seem to be a matter of no great difficulty to correct any abuse that may exist, without having recourse to a new and untried tribunal, such as is proposed in the resolution referred to the committee.

"In favor of leaving the colleges in undisturbed possession of the privileges now possessed by them, several arguments, entitled to consideration, may be adduced. 1st, Several of the institutions possess the privilege of conferring degrees, having the validity of a license to practise the different branches of medicine, as a vested right, of which even the legislature cannot deprive them. Without their consent, therefore, no uniform rule applicable to all the States can be adopted, and uniformity is essential to the successful working of the reform contemplated.

"2d. Under the present organization each school has it in its power to elevate or degrade the value of its diploma; and to make the possession of it an honor, or otherwise, according to the character of the school from which it emanates. The faculty of each college is interested in maintaining the reputation of the institution with which it is connected.

"3d. The character of the graduates of an institution will, in a great measure, depend on the character, as men and as teachers, of the Professors. When the Professors are men of elevated sentiments, the students insensibly imbibe the same high tone of feeling. The young graduate is proud of seeing the names of men whom he honors and perhaps venerates attached to his diploma; while teachers cannot fail to be gratified in attesting to the qualifications of diligent and well-deserving pupils. It may well admit of doubt whether it would be advantageous to break up this sympathy between students and their instructors.

"4th. The teachers have the best opportunities of knowing the characters and capacities of candidates, from witnessing their general deportment in the class rooms, and at the several examinations to which, in most institutions, they are subjected, during the lecture terms. The necessity of good behavior, and regular attendance, for obtaining a degree, contributes greatly to secure that discipline and decorum in the class rooms so essential to the advancement of the pupil, and the success of the teacher. If the Professors were to be excluded from the board of examiners, or not to have a preponderating control, their influence over their classes would be greatly impaired. Every one knows that the conduct of a medical class depends almost entirely on that of the advanced students, and that among such of those as are not influenced by higher and more honorable considerations, the fear of the examinations operates as a powerful check on unruly behavior.

"The Committee leave it to the Convention to decide, whether the arguments in favor of the present mode of granting diplomas in the colleges, are sufficient to counterbalance the abuses said to be connected with it.

"The second division of the resolution proposes that 'instead of conferring the right of license on medical colleges, and State and county medical societies, it should he restricted to one board in each State, composed in fair proportion of representatives from its medical colleges, and the profession at large, and the pay for whose examiners should in no degree depend on the number licensed by them.

"Before entering upon any discussion of the merits of the suggestions contained in this part of the resolution, the Committee would bring to the recollection of the Convention, that at the present time there is scarcely a State in the Union, in which any license to practise medicine is required, and that consequently, if the degree of M. D. or the license of a Medical Society possess any value, the value is derived from the character of the source from which it emanates, rather than from any privilege it brings with it to the recipient. So far as the public is concerned, a simple certificate, signed by any association united for the purpose of teaching, if composed of men of eminence, would possess as much value and validity as a degree conferred by an incorporated college. The wish of the profession seems to be to establish some uniform standard throughout the United States, so that the title of Licientiate in Medicine, or Doctor of Medicine, shall imply on the part of the possessor or recipient of such titles, the possession of some definite amount of knowledge and acquirement, both in his own profession and in general science. For the want of some such standard these medical titles are in some States respected, in others justly depised.

"It is the opinion of this Committee, after a full consideration of the subject in all its bearings, that it is not at present expedient to recommend that the granting of licenses and degrees should be restricted to one board in each State. Where there already exist State and County Medical Societies, it is believed that it will be better and safer to improve the present organization and working of these, than to attempt a new organization.

"The Committee cannot conceive of any plan by which a more full and a more fair expression of the views of the profession can be obtained, than by the organization of County Societies and State Societies, to be composed of delegates representing said counties. There can scarcely exist a doubt that, if proper exertions were made by the united profession, a law might be enacted in every State of the Union for the incorporation of such societies, and requiring that a license should be obtained by every person before he could be recognized as a regular practitioner of medicine. But even if an act of incorporation could not be procured, voluntary associations upon the same general plan, would accomplish substantially the same purposes. They could determine the conditions on which persons would be admitted into the respective associations, which would soon have the force with the profession of a legal enactment. Without some such laws or associations among the respectable members of the profession, empiricism must prevail, as it does now, to a fearful extent.

"As the wants of all classes of the community ought to be provided for, the Committee are of opinion that the requirements for license should not be so high as to place it beyond the reach of persons in moderate circumstances; whilst those for the degree of Doctor in Medicine should be such as the possession of so high an academic honor was designed to imply.

"It may be said that the lives of the poor and humble are as valuable as those of the rich, and that, therefore, they ought to have as good physicians and surgeons. That may be all true; but we must take the world as we find it. In every country the great mass of the population are attended by medical men of inferior acquirements. The skill of a practitioner, however, does not depend so much on general accomplishments as on his strictly medical education; and it often happens that the comparatively illiterate general practitioner, is a better and safer medical adviser than the graduated and finished scholar.

"If the requirements for license be placed too high, in the existing state of society in this country, the license will be altogether dispensed with, and persons will engage in practice without it. The question is not, between the present plan of medical education and the best that can be suggested; but between that which is now common, and the best that is practicable, and can at the present time be enforced.

"From the general tenor of those remarks the Convention will gather that the Committee are not in favor of making any radical changes in the existing modes of obtaining licenses and degrees. They are of opinion that the Convention will be more usefully employed in recommending such measures as will correct the abuses that are known to exist, and in advising such alterations in the course and duration of study to be pursued in future by students, as will tend to elevate the medical profession and to render it more useful and more respectable. It is deemed inexpedient, at the present session, to introduce any subject likely to mar the harmony of the Convention, or to lessen the influence of its deliberations.

"In accordance with these views the Committee offer the following resolutions:

"*Resolved*, That inasmuch as an opinion prevails to a considerable extent in the profession, that certain abuses have crept into some of the medical colleges, namely, that they confer degrees upon persons who have not fully complied with their own requirements, or on those who do not possess the requisite amount of knowledge to entitle them to such distinction, it is deemed expedient, by this Convention, in order to satisfy the just wishes of the profession, and to remove just grounds of complaint, that such colleges as do not already possess mixed boards of examiners, should consent to have associated with them in the examination for degrees, some members of the profession not engaged in teaching, or otherwise interested in such institutions.

"*Resolved*, That the number of boards for granting licenses in the several

States should be as limited as would comport with the convenience of examiners and candidates in each State.

"*Resolved*, That it would conduce to the elevation and usefulness of the profession, that the regular and respectable members of it should form themselves into county or district societies, and that those societies should be represented in a State Medical Society, in such ratio to the whole number of each society as may be agreed upon as most proper—that each State Society should appoint such a number of boards for examining and licensing candidates as may be thought advisable, according to the size and population of the State.

"*Resolved*, That when a college or colleges of medicine exist in a State, it be recommended to such colleges to invite a delegation from the State Society to be present at the time of the examinations for the admission of candidates for degrees, not for the purpose of embarrassing the faculty or candidates, but to satisfy the wishes of some portions of the profession, and relieve the institutions themselves from the imputations to which some of them seem to be at the present time exposed.

JAMES M'NAUGHTON, *Chairman*.
THOMAS COCK.

(To be concluded in our next number.)

INHALATION OF ETHER.—We have said but little in our Journal thus far, in relation to the employment of ether in the practice of operative surgery, because we confess we have had our doubts as to the expediency of its use, and because we have deemed it proper to wait until a sufficient number of experiments with it had been instituted, to lead to some safe and reliable conclusions. We have not considered it, by any means, as established, that the *prevention of pain* in surgery is so vital a desideratum, as many seem to suppose; to answer this question correctly, we should have to inquire, whether pain be an entirely gratuitous and unnecessary accompaniment to surgical operations; whether there is not some final cause, some useful end to be attained by it, which counterbalances, in value and importance, the temporary suffering inflicted. We profess to no great skill in the art, nor to be able to dive deeper into Nature's secrets than others, but we have been in the habit of regarding pain as a kind of monitor and safe-guard, under ordinary circumstances, both to the surgeon and the physician; and though, in many cases, its removal, or alleviation, is doubtless a consummation devoutly to be wished, it by no means follows, that it is not often conservative and beneficial. Without pain, the practitioner of medicine and surgery, we believe, would be constantly exposed to fatal errors; its entire absence, or rather the unconsciousness of its presence, when other circumstances show that it ought to be manifested, has always been regarded as a highly-unfavorable sign. As at present advised, therefore, we see no reason whatever to doubt, that pain should be considered as a *healthy* indication, and, for the most part, an *essential* attendant on surgical operations, amply compensated by the effects it produces on the system, as the natural incentive to reparative action.

We have, we acknowledge, been struck with astonishment, at the headlong rashness with which surgeons, the world over, have rushed into the employment of this powerful agent, and that, too, in operations of a very insignificant character, as if an article, (whose *modus operandi* is by no means fully understood), which can produce a perfect abolition of sense, if not of motion, could be used with perfect safety, in almost every condition of the system, and for nearly every operation. If pain has no influence in exciting healthy reaction and the recuperative efforts, it by no means follows, that the inhalation of nitrous ether may not produce serious depressing effects on the nervous system, which is calculated to interfere with the reaction, so essential to speedy recovery, and the eventual safety of the patient. Up to the present time, the operations performed under the influence of this agent may be numbered by the hundred, if not thousand; and, we confess, the fatal results, *so far as reported*, have been fewer than we could have anticipated. Still, they may be numbered by the *score;* cases which would, in all probability, have terminated successfully, if the patient had not had a double shock to overcome, viz., that produced by the ether, and that by the operation. So numerous and unequivocal have these fatal cases been in Zurich, Switzerland, that the Council of Health has recently issued an order, prohibiting the use of ether vapor by those who practise dentistry, bleeding, and other minor surgical operations.—(*L'Union Medicale.*)

Now, it being admitted that fatal results do sometimes follow the use of this powerful drug, it becomes a question, whether it be justifiable *to risk the loss of life*, no matter how small that risk may be, *for the sake of preventing temporary suffering;* for we believe it is not claimed that ether is often instrumental in saving life, which might be lost without it.

We do not wish to be understood by these remarks, as absolutely opposing etherization in all cases; we can conceive of individual cases where we should deem its use expedient; but we do wish to check the headlong propensity, so manifest at the present time, of resorting to its use on every occasion, even in the ordinary practice of midwifery and dentistry.

We have recently received some pamphlets in relation to the claim of priority of discovery as regards the inhalation of the vapor of ether for the alleviation of pain in surgical operations. We have read them carefully, we believe, and without a particle of bias in favor of any individual, one way or the other, and our conclusions are the following:—

1. Dr. WELLS, *of Hartford, Conn., first discovered and established the principle that by the inhalation of nitrous oxide gas and rectified ether, such a degree of insensibility can be produced, that operations can be performed without consciousness on the part of the patient.* He shows, by numerous and well-authenticated affidavits, that *he applied this discovery with perfect success*, as far back as 1844, and that he visited Boston at that time, for the express purpose of making his discovery known to the faculty; that he addressed Dr. Warren's class on the subject, and tried the experiment of the inhalation of the nitrous oxide on a patient in the operating theatre of the Mass. Hospital, but that it failed on account of the gas-bag being removed too soon.

2. It is admitted that Dr. Wells communicated his discovery to Drs. Jackson and Morton in Nov., 1844, after having operated on fifteen patients with success, and that Dr. Morton applied to him to prepare some of the gas for the same purpose, and was directed to Dr. Jackson.

3. It is proved by affidavits, that *rectified ether* was used by Dr.

Wells in his early experiments, but that he finally gave the preference to *nitrous oxide*, as "being more agreeable to inhale, and less liable to do injury."

4. Dr. Morton had been a student of Dr. Wells; and in a letter to Dr. W., dated Oct., 1846, he speaks of having discovered a "*preparation*" or "*compound*" which would eclipse the one made by Dr. W., for which, he says, he had taken out a "patent" and wishes to know if Dr. W. "would not like to visit New-York and other cities as an agent, and dispose of rights."

5. It appears from the affidavit of Mr. R. H. Eddy that Dr. Jackson, so far from claiming to be the discoverer, admitted, in Oct. 1846, that he "had never tried any experiment to practically demonstrate the fact that the inhalation of ether would prevent pain during a surgical operation," that "he did not wish his name connected with the matter in any shape," that he said he would be perfectly satisfied for making the suggestion of ether to Dr. Morton, if Dr. M. would pay him $500," and that he only consented to take out a patent for the "COMPOUND" in connection with Dr. M., when he learned from Dr. Gould, that he, (Dr. J.) could do so without rendering himself liable to expulsion from the Mass. Medical Society, inasmuch as the by-laws only provide, "that no member shall deal in secret remedies," and *as* "*any invention Dr. J. might make, would cease to be secret, the moment it might be patented!*"

6. From the testimony of Mr. Caleb Eddy, it seems that Dr. Morton called on Dr. Jackson in Oct., 1846, for the loan of a gas-bag, for the purpose of "administering *atmospheric air* or *something else* to a patient to *quiet her fears*, in order that he might extract a tooth; that Dr. M. stated that he was desirous of *operating on the imagination* of a person, in some such way as was said to have been practised on a criminal condemned to death, viz., by suffering warm water to trickle upon and from some wounded part of the body, while the eyes of the patient were bandaged, &c. On this occasion Dr. J. is said to have suggested ether.

In connection with this subject, we take occasion to repeat what we have said before, that the manner in which this discovery, so called, has been brought before the world, is disgraceful to those who have sought to make it a source of emolument, and should subject its authors to the severest rebuke from the profession. We denounced it at the first, as contrary to the established ethics of the profession, which opinion remains unchanged; and we shall not cease to consider it, as we have ever done, as the very essence of quackery. A good deal of mystification has been spread over the whole matter, and ponderous pamphlets have wrapped it up in a considerable amount of fog; but the truth will eventually be known, and credit be given where alone it is justly due. The *principle* involved, we suppose, is the *production of insensibility to pain during surgical operations*, and we have said that the whole credit of that discovery belongs to Dr. Wells. Had he never used the *ether* at all, his merit would still be the same. But Drs. Morton and Jackson, in the specification of their patent (Bost. Med. Jour., April 7, 1847) claim to have discovered a *new fact* or principle, viz., that "the inhalation of certain *vapors*, particularly those of *sulphuric ether*, produces insensibility to pain, or such a state of quiet of nervous action as to render a person or animal incapable to a great extent, if not entirely, of experiencing pain, while under the action of the knife," &c. "This," they say, "is our *discovery*, and the combining it with, or applying it to, any operation of surgery, for the purpose of alleviating animal suffering, as well as of enabling a surgeon to conduct his operations, with little or no struggling, or muscular action of the patient, and with more certainty of success, constitutes our *invention*." If there is any truth in affidavits, both the "discovery" and the "invention" belong to Dr. Wells. The thing patented we are told is, the *use of any kind of "vapours"* for the purpose of producing this insensibility, (the specification speaks of several modes in which they may be used) as if such a thing as this could be legally patented. As the patentees have relinquished all idea, however, of maintaining the patent, we hope they will be induced to go a step further and relinquish the whole credit of the discovery to him to whom it properly belongs. This, though an act of late justice, will gain for them more real substantial fame, than they are ever likely to acquire by persisting in an unjust claim.

It strikes us as somewhat remarkable, that Drs. Morton and Jackson should *both* have made the same discovery, and so nearly at the same time, that they could *both* make affidavit that the discovery was actually made by each of them, though the priority has since become a matter of controversy between them; and that these two gentlemen should *one* of them have been Dr. Wells' student, and the *other* the chemist to whom Dr. Wells advised Dr. M. to apply for nitrous oxide gas, and *both* the very same individuals to whom Dr. Wells communicated the result of his experiments, and the important *fact* which it is proved he established more than two years before, viz., that both nitrous ether and nitrous oxide gas would produce such a degree of insensibility, that severe surgical operations might be performed without consciousness, while a person was under their influence. We are astonished, we say, not a little, at these strange coincidences, especially as one of these gentlemen acknowledges he had never experimented with the article; and seems to have thought very little of the matter until it was hailed as a very important affair, for the discovery of which both fame and emolument might accrue. Should it be thought that we have done injustice to either of these gentlemen, our pages are open to a reply.

Case of Traumatic Tetanus, *communicated in a letter to* S. S. Purple, M.D. of N. York, by Mr M. B. Brown, of Pitt Co., N. C., May 28th, 1847.—"Dear Sir:—I was called to see Jno. L., aged 25 years, on the 29th June, 1846, 8 o'clock, P. M. I found him with tonic spasms and rigidity of the muscles of the jaw—deglutition impossible—power of speech gone—the jaws completely closed—the abdominal muscles and muscles of the upper and lower extremities rigid—the action of the extensors balancing that of the flexor—except in the fingers, they were clenched in the palm of the hand—intellect undisturbed. Soon after I arrived, on attempting to drink, he was seized with spasmodic tremor of the whole frame, all the voluntary muscles were rigidly spasmed—his countenance hideously distorted—copious perspiration bedewed the skin, pulse quick, small and regular, extremities icy cold. The spasms lasted two minutes. In the interval he seemed thirsty and motioned for water to be brought, on attempting to drink, he was cramped again.

"From the person who had been with him during the day I learned the following :—They had been fishing together, about noon, as near as he could recollect ; the patient caught a *catfish*, and while taking it off the hook *the end of his thumb was punctured by the fin* of the fish. In about three hours the wound became very painful—he complained of feeling chilly (it was a warm day), of considerable nausea and vomited freely—they returned home, the patient growing worse—complained of great oppression at præcordia, dyspnœa, and some tightness about the jaws—very restless. The patient, previous to the attack, had been in good health.

"Treatment. Strong sinapisms to the whole track of the spine, on the extremities and over the abdomen after having previously excited the skin with Tr. Capsicum—an enema of infus. Tabaci [ʒ j. to Oss.] was administered. On examining the wound it was scarcely perceptible—I incised it freely and dressed it with Ung. Cantharid. Waited an hour when there was so much relaxation as to allow the patient to swallow 1 gr. Sulph. Morphia, this dose was repeated every hour. In three hours no bad effect had arisen from the effects of the Morphia—it seemed to expend all its powers in allaying the universal tetanic rigidity and spasms—by this time he could talk, though badly. I administered 20 grs. Calomel, to be followed in three hours by ℥ j. Sulph. Magnesia, and ordered the Morphia to be continued in ½ gr. doses every hour. 30th, 11 o'clock, A. M., much improved—Salts had purged him freely—skin warm and moist—spasms had disappeared—but little stiffness of the jaws. Continued the Morphia in ¼ gr. doses during the day. I omitted to say the mustard had blistered the back. Directed him to keep his bowels open, dress the wound with basilicon nig.. and keep under the influence of wine for a week. This patient had no return of tetanic spasm, and to this day is perfectly well."

Delluc's Pharmacy.—We have occasionally been favored with various *Formulæ*, by M. Delluc, the well known *Pharmacien* of 581 Broadway, which, from their elegance and known efficacy, we have thought proper to publish in our journal. The following refers to a new preparation which has proved decidedly beneficial in chronic affections of the urinary organs.—(*Ed.*)

Dr. Lee—Dear Sir : I herewith send you a sample of the fluid Extract you have been kind enough to suggest to me, as being a desirable combination in affections of the urinary organs. It is composed, as you know, of the *fol. Buchu, Uva Ursi, Pareira Brava, and Chimaphilla Umbellata*, in equal proportions. The properties are extracted by means of Hydro-Alcohol. By this process I have obtained all their soluble and active properties, which are mucilaginous, astringent, bitter, extractive, and aromatic. You will find it highly mucilaginous and aromatic, having been prepared without the means of heat. According to the strength of this preparation, the dose would be from one to two teaspoonfuls three times a day in water.

I have also the pleasure to inform you that it has been tried already, with marked success, in a case of enlargement of the prostate gland, with considerable irritation of the mucous membrane of the bladder, and great urinary distress; the patient—an aged man—was greatly relieved after a few doses of the Extract.

As many Physicians may probably object to its containing any alkaline preparations, I have thought best to leave it to the discretion of the medical practitioners to combine it with any alkali, as the case may require. Hoping that it may prove equally good in your hands, I remain, with great respect, yours, M. DELLUC,
551 Broadway.

New York, April, 1847.

EPIDEMIC ERYSIPELAS IN MICHIGAN.—*Extract of a Letter from* S. GLISSON, M. D., to the Editor.—"Livingston, Mich., June 20, 1847.—The same disease which has for years back destroyed a good many people in the State of New York, and other States, has lately been observed in this neighborhood, i. e., about six miles from here. I allude to a form of Malignant Erysipelas, commonly called "Black Tongue." Although the stage of excitement is well developed in the commencement, yet it would seem that the antiphlogistic treatment makes but little impression, and the patient soon falls into a train of typhoid symptoms, which render stimulants necessary. The black appearance of the tongue has not been noticed more than once, perhaps, out of ten cases; the same looking more as if it had been boiled. The tumefaction of the scalp and face is usually extraordinarily great; likewise that of the fauces, palate, tongue, etc. The termination in many cases proves fatal. External and stimulating applications, such as *Arg.*, *Nitr.*, *Terebinth*, *Camphor*, &c., seem to do no good; but, in some cases, manifest injury. The treatment which appeared to have any success was stimulating and diaphoretic, such as a combination of Camphor, Myrrh, Spir. Nitr., Dulc., &c. It cannot be denied that some of the "Red Pepper Doctors" have been a little more fortunate in their mode of treatment of the malady; and I rather think that their heating and stimulating remedies, although to be condemned as a universal remedy for all diseases, may not be entirely out of place here; yet while making this concession, I do most emphatically denounce the idea of favoring their quackery."

COMMENCEMENT OF THE BUFFALO UNIVERSITY—The exercises connected with the first commencement of the Medical University of Buffalo, were held at the First Presbyterian Church, yesterday. Quite a large concourse of our citizens assembled to witness them, as the occasion was a novelty here—this being the first.

The exercises were opened with an impressive and appropriate prayer by the Rev. A. T. HOPKINS, the pastor of the church, which was followed by music from the choir.

The Chancellor of the University, the Hon. M. Fillmore, delivered the Address. It was principally confined to a historical sketch of the rise and progress of education in Buffalo, and urged the claims of the University upon our citizens for its permanent establishment, by the purchase of a lot and the erection of suitable buildings. The plan of the institution contemplates an Academic, Law and Theological Department, which are to be organized as soon as practicable. The Academic will next be provided for, and as soon as the means can be realized for that purpose. The Chancellor, in his address, paid well-deserved compliments to the Professors for the ability and success which have marked the first term of their connection with the Buffalo University—ranking them second to none in the Union, in their several Departments.

After music from the choir, the Chancellor conferred the Degree of M. D. upon the following young gentlemen:

Bela E. Phelps, N. Y.—*Hernia*. L. C. Rogers, N. Y.—*Empiricism*. W. H. Andrews, Michigan—*Remittent Fever*. De Lois M. Norton, N. Y.—*Acute Pnemonitis*. George B. Parker, N. Y.—*Mania-a-Potu*. I. E. King, Pennsylvania—*Puerperal Fever*. John P. Dudley, N. Y.—*Erythema Anatomica*. H. D. Garvin, N. Y.—*Fractures*. Sidney A. Foss, Ky.—*Typhoid Fever*. Wells Taber, N. Y.—*Pneumonia*. Horace S. Lindley, Ohio—*Acute Laryngitis*. I. A. Whiting, Canada—*History of Physiology*. H. W. Barrett, N. Y.—*Dyspepsia*. I. M. Hardy, Canada—*Hemorrhage*. Geo. Abbott, N. Y.—*Inflammatory Croup*. Wm. King, N. Y.—*Pregnancy*. Z. H. Blake, N. Y.—*Scarlatina*.

The Honorary Degree of M. D. was conferred upon ITHAMAR H. SMITH, of Canaan, Ct.

After the conclusion of this part of the exercises, Prof. HAMILTON delivered an address to the graduates. The address was a feeling and beautiful effort—replete with high sentiments, of sound morality, and enlarged and pure philanthropy, which, if made the rule and guide of the young gentlemen to whom it was more immediately directed, cannot fail of making them ornaments to their profession and to society—useful men and devoted Christians, in thought, word and deed. The peculiar province of the true physician was pointed out, and the duties and responsibilities of the profession enforced.

Music from the choir, and a benediction by the Rev. Mr. SCHUYLER, closed the exercises of the first commencement of the Buffalo Medical University.—*Buffalo Daily Courier of June* 17, 1847.

COMPLIMENT TO C. LA FORD, M. D., DEMONSTRATOR OF ANATOMY IN THE BUFFALO UNIVERSITY.—We have received a copy of a series of resolutions unanimously passed by the Medical class of the University of Buffalo, at its recent session, highly complimenting the Demonstrator, Dr. Ford, for his very "able, interesting, and highly instructive course of anatomical lectures, just concluded." One resolution expresses the opinion that Dr. F. is unsurpassed by few of his age in this department of science, in which opinion we fully coincide. We also unite with the class in wishing him all prosperity and happiness. The resolutions are signed by J. M. Hardy, Chairman, and Sidney A. Foss, Secretary.

"THE NEW YORK MEDICAL AND SURGICAL REPORTER."—This weekly journal has been discontinued for want of patronage. The former editor, Dr. Collins, has had no connection with it since the close of the first volume, and is not responsible for the course pursued by its late proprietor, in discontinuing it before the expiration of the year, for which payment had been made by many in advance. We hope no blame will be attached to Dr. Collins, who is a strictly honorable man, and who never makes promses without performing them to the letter.

Brief Account of the Medical Properties of "the Iris Versicolor, or Blue Flag," *in a letter from* M. H. Andrews, M.D., of Mich., to the Editor.—The fresh root of this plant has a sweetish sub-acrid taste, and a faint disagreeable odor, both of which are nearly dissipated by drying. My mode of preparing, is to take the fresh dug roots, cut them into thin slices, and place them in an oven heated to about 100° until they are thoroughly dried; then pulverize, and put the powder in a box or bottle, to keep it from the air. In this way, it may be kept for months, and perhaps years. The dose of the powdered root is from ten to fifteen grains. It should be combined with some stimulant, as cayenne pepper, gum myrrh, or ginger. One grain of the former, or two of either of the others, to prevent the nausea and griping which occasionally follow its administration when given alone. In this form I have given it to more than two hundred persons, of all ages and both sexes, and have uniformly found it to operate as a mild, yet effectual cathartic, producing copious discharges, containing a large amount of bile. It is very efficacious in removing the pain and soreness of the abdomen common to remittent fever. When given in small doses, of from two to four grains, it acts as an alterative. I have given it in several cases of habitual costiveness, of long standing, with success. It differs from most other vegetable cathartics in its taste, which is neither nauseating nor disagreeable, and on that account is to be preferred to those of a nauseating character, where it will answer as good a purpose. It is readily taken by the most delicate females, or by children, its taste never being objected to. I do not know that it possesses virtues superior to many other articles of the same class, but it is equal to jalap, and other articles of a more disagreeable taste, and may, in many cases, be substituted for our foreign cathartics.

Abstract of Proceedings of the Lyceum of Natural History of New York.

February 22d. The following gentlemen were elected officers of the society. Joseph Delafield, President; John Le Conte, Wm. C. Redfield, Vice Presidents; John H. Redfield, Corresponding Secretary; R. H. Browne, Recording Secretary; B. W. Budd, J. B. Bell, R. H. Browne, J. C. Brevoort and James Thompson, Curators.

March 1st. J. H. Redfield read an extract from the Columbian Magazine, for 1790, p. 334, in which it was stated that the coral clam was found in great quantities off the Capes of the Delaware. He wished to call the attention of Naturalists to this subject, as it was not well known what shell is alluded to. It is described as being six inches in length and four in breadth, the shell transparent and slightly tinged with pale red, and open at both ends, the animal white, bordered with a fine red. It is said to have been found in 33 fathoms of water; this, however, is probably an error, as the apparatus used for procuring it was too imperfect to bring up any thing from that depth.

It is to be hoped that the conchologists of Philadelphia will attempt to discover what this shell is, as the name coral clam appears to be entirely unknown.

Mr. J. Thomson read a description of a new species of *Trichodes* (*Clerus Lat.*) for which he proposes the specific name of *Trichodes* ——— *rubens capite nigro, thorace piloso elytris dense punctatis, maculis* 6 *nigris notatis; abdomine metallico, pedibus pilosis. Length* 3.75 *lin.*

March 8. Dr. Le Conte called the attention of the society to a fossil in the museum, without a name, which according to Owen's Odontography, ought to be a *Sceledotherium*, and was the *megalonyx laqueatus* of Harlan.

March 15. The reports of the different standing committees were presented and read; from these it appears that the society was never in a more flourishing condition. The Library and the Museum have during the last year received considerable additions, and the publishing committee promise to complete the fourth volume of the annals before the end of the year.

March 29. Mr. Redfield made some remarks on the tracks recently discovered by Professor Hitchcock in the new red sand stone of Connecticut. Mr. Hodge was requested to deliver the annual oration, in place of Dr. Draper, who declined in consequence of other engagements.

April 12. Mr. Morris gave an account of some unusual appearances connected with the display of the Aurora Borealis of the 7th inst. Mr. Wheatley announced the recent decease of Dr. Amos Binney, a corresponding member of the Lyceum.

April 19. Mr. Hodge announced the discovery of *Oxyde of Tin*, on the West bank of the Hudson river, near West Point; it occurred in very small quantity in an Oxyde of Iron. He also made some remarks on the occurrence of metallic veins in the same locality, particularly at Caldwell's landing, and exhibited a specimen of ore from Bradley's mine, likewise a specimen of Bog ore from Penobscot, Maine, containing peroxyde of iron 75, water 20, and sulphuric acid 5, and made some remarks on the construction of furnaces and the smelting of ores.

Mr. Haldeman also made some observations on the different methods of constructing furnaces and on smelting. He stated that the product of the furnace is not always in proportion to the richness of the ore, but that much depended upon proper care in the regulation of the quantity and temperature of the blast, and on the fuel used.

April 26. Mr. Jamieson made some remarks on the fossil remains of Northern India, and alluded to the labors of Dr. Faulkner who had explored the sections of the country in the vicinity of Sabbatha. Mr. Hodge made some remarks on Reischenbach's work on Magnetism. He stated that Reischenbach, from his researches had arrived at conclusions similar to those of Professor Farraday, of London, and Professor Draper of New York, though by a different mode of induction, viz., that there is another imponderable substance or agent, the relations of which have never been satisfactorily examined.

May 3.—Mr. Hodge made some remarks on the deposits of iron ore in Cass. County, Georgia, and stated, that they are more extensive and of a better quality than are found in any other section of the Union. They are of various varieties, passing from hematite to micacious ore.

Mr. Dinwiddie announced the discovery of *Platina* in Rutherford County, North Carolina.

Mr. Redfield inquired if any member was acquainted with the fact, that the vertebral column of the *Coregonus alba* (White fish of the Lakes) turned upwards towards the upper lobe of the tail similar to fossil fish.

Mr. Haldeman in reply stated, that he had never examined the animal in question, but that in fifty different species of fish, from the Susquehannah river which he had minutely examined, he had seen no tendency of the vertebral column towards the superior caudal lobe.

Mr. Haldeman remarked, that he had observed the pulsations of the lymphatic hearts in the tail of the eel. In the course of his remarks, he alluded to the distribution of animals throughout the Union. The *Esox Osseus* being only found in the Susquehannah and Delaware, east of the Alleghany, the ridge which divides the waters flowing into the Valley of the Mississippi and the lakes, from those that flow into the Atlantic.

He accounted for this fish, belonging to the Western rivers and the lakes, being thus found in streams flowing directly eastward to the Atlantic, from their having their sources in Porter County, Pennsylvania, where the Alleghany, a tributary of the Ohio and the Gennessee, which empties into

Lake Ontario, likewise take their rise. He also called the attention of members to the remarkable fact of the *Unio viridis* occurring in the Susquehannah and Schuylkill, when it is found in no other river in the United States except Pigeon river, Kentucky. Dr. Leconte cited the *Trionyx Ferox* as another example of the partial distribution of animals, this tortoise being found in Savannah river and south of it, in the Mississippi and its tributaries, and in the Lakes, but never in any of the Atlantic States north of Georgia. The *Testudo Polyphemus*, and the species of *Geomys* of Georgia are never found north of Savannah river.

May 10.—Mr. J. H. Redfield exhibited specimens of fossil shells found at Brooklyn from 30 to 35 feet below the surface.

Mr. Wheatley announced that the mineral from Texas, Lancaster County, Pennsylvania usually called *green oxyde of Chrome*, is in reality a *hydrate of nickel;* he also exhibited a mineral supposed to be *Greenochite* (*sulphuret of Cadmium*) from Bergen Hill, New Jersey.

May 31.—Mr. Lawrence read some observations on the *Crangon septem-spinosus* (Say) and the *Palæmon vulgaris*, both which animals are called *Shrimps*. The first named animal is now taken abundantly in the harbor, and is coming into common use as an article of food; they frequent the deep water, and are procured by means of nets drawn along the bottom of the ship channel at a depth of six or more fathoms. Dr. Dekay in the Zoology of the State gives the longest measurement at 1¾ inches, whereas they are commonly found an inch longer; they have also spines on the caudal plates not noticed by him.

Mr. J. H. Redfield read a paper on the distinctive characters of the *Cypræa reticulata* of Martyn and the *Cypræa Histrio* of Menschen: he pointed out the manner in which most authors have confounded these two shells; traced the history and synonomy of each, showed the former of them is identical with *C. maculata* Barnes, and offered new descriptions and figures of both species.

Dr. Le Conte announced the discovery by Professor Baird, of Carlisle, Pennsylvania, of a new genus of *Amphibia*, intermediate between *Proteus* and *Amphiuma*.

June 14.—Mr. Redfield read a very interesting paper on the *Pleistocene* shells from the drift on the west end of Long Island, between Fulton and South ferries.

(We shall hereafter favor our readers with a regular abstract of the Proceedings of the Lyceum, furnished by the Secretary.—*Ed.*)

Dr. E. H. Barton.—We are under obligations to Dr. Barton, Surgeon U. S. Army, for several copies of the American Eagle, published at Vera Cruz, Mexico, from which we have gathered some interesting items of Medical news. The Municipal Council of the city have established a Board of Health, who have charge of the entire Sanatory condition of the city, of which Dr. Barton is President, and Drs. Mendizabel and Dimond the other members. The "Eagle" of May 29th, contains an address to the unacclimated, which, we have no doubt, will prevent much sickness, if its advice be heeded.

From Dr. Barton's report of 8th June, we gather that there are only two hospitals San Sebastian and Loretto, belonging to the city of Vera Cruz, which are strictly charity hospitals, and are well endowed by the city. The San Sebastian is intended for men, the Loretto for women. Owing to the injury sustained by the former during the bombardment, the military hospital of San Carlos has been substituted in its place, which furnishes better accommodations. Owing to the former defective and inefficient medical and surgical attendance, Dr. Mendizabel has been appointed to take charge of San Loretto, and Dr. Infante of the San Sebastian. The city has been divided into seven districts, and a physician appointed to each. The city has been thoroughly cleansed under the direction of the Board of Health, and it is stated to be cleaner at present, than at any former period. Total mortality in May, 203. The Board recommend that *pine apples*, *water melons*, and all green fruit be forbidden introduction into the city, and immediately destroyed when found.

Surgeons and Assistant Surgeons U. S. A. appointed recently to be attached to the ten new Regiments.—Surgeons—Lewis W. Jordan, April 9th, 1847, Tenn., 14th Reg. J. s. B. Slade, do., La., 15th Reg. U. S. Inf. Geo. Berry, do., Ind., 16th Reg. U. S. Inf. John W. Tyler, do., D. C., Reg. U. S. Foot Riflemen and Voltigeurs. Edward H. Barton, do., La., Third Reg. U. S. Dragoons. Justin T. Stearns, do., Mass., 9th Reg. U. S. Inf. Thomas R. Spencer,* do., N. Y., 10th Reg. U. S. Inf. William J. Barry, do, Md, 11th Reg. U. S. Inf. Robert R. Ritchie, do., Va., 12th Reg. U. S. Inf. John T. Lamar, do., Ga., 13th Reg. U. S. Inf.

Assistant Surgeons—Robert H. McGinnis, April 9th, 1847, Ohio, 14th Reg. U. S. Inf. Edward B. Price, do., Illinois, 14th Reg. U. S. Inf. Wm. D. Carlan, do., Ohio, 15th Reg. U. S. Inf. Charles O. Waters, do., Iowa, 15th Reg. U. S. Inf. Allen T. Noe, do., Ky., 16th Reg U. S. Inf. James L. Clarke, do., Va., Reg. U. S. Foot Riflemen and Voltigeurs. Aaron D. Chaloner, do., Pa., do. T. J. Robinson, do., Tenn., 3d Reg. U. S. Dragoons. C. S. Abell, do., Ky, do. J. B. Walker, do., N. H., 9th Reg. U. S Inf. Francis L. Wheaton, do., R. I., do. John Conger, do., N. Y., 10th Reg. U. S. Inf. John H. Weir, do., Pa., 11th Reg. U. S. Inf. Samuel D. Scott, do., Pa., do. A. G. Howard, do., S. C., 12th Reg. U. S. Inf. Leonard Randall, do., Texas, do. Robert T. Gibbs, do., Ala., 13th Reg. U. S. Inf. Frank Melone, do., Ala., do.

Promotions and appointments in the Medical corps of the Navy.—Promotions—Passed Assistant surgeon J. Dickinson Miller, to he Surgeon, vice J. C. Spencer, resigned.

The following assistant surgeons were examined by the board recently in session at Philadelphia, and found qualified for promotion—John Hastings, to rank next after Passed Assistant Surgeon Thornley. Richard T. Maxwell, to rank next after Passed Assistant Surgeon Hastings. J. Francis Tuckerman, to rank next after Passed Assistant Surgeon Maxwell. Morris B. Beck, to rank next after Passed Assistant Surgeon Tuckerman. Lewis J. Williams, to rank next after Passed Assistant Surgeon Beck. Richard McSherry, to rank next after Passed Assistant Surgeon Williams.—Appointments—The following candidates were found qualified for admission into the service in 1844, and were commissioned as assistant surgeons on the 5th of March, 1847, viz.: Philip Lansdale, of Maryland; T. Benson De Lany, of Delaware; Alexander John Rice of New Hampshire; John A. Pettit, of Ohio; Thomas B. Steele, of Maryland; James F. Harrison, of Virginia; A Nelson Bell, of Connecticut. The following candidates were found qualified by the board, and assigned to rank as assistant surgeons in the following order, viz.: No. 1. Wm. J. Babb, of Pennsylvania. 2. R. J. Farquharson, of Louisiana. 3. Alexander Robinson, junior, of Virginia. 4. Edward R. Squibb, of Pennsylvania. 5. Samuel G. White, of Georgia. 6. Benjamin Rush Mitchell, of Missouri. 7. James S. Gilliam, of Virginia.

Army Board.—The following gentlemen recently passed the Army Board in this city: Nicholas L. Campbell, N. Y.; Samuel L. Barbour, Georgia; George E Cooper, Penn.; Ebenezer Swift, Ohio; John S. Battee, Maryland; Glover Perrin, Ohio; P. G. S. Ten Broeck, John Campbell, N. Y.; John E. Summers, Charles H. Smith, Va.; Washington M. Ryer, N. Y.

Medical Convention of Ohio.—At the recent meeting of this very respectable body at Columbus, Dr. Butterfield, one of the delegates from it to the National Convention at Philadelphia, made a verbal report of the proceedings of the latter; after which, on motion of Dr. Tate, a resolution was adopted requesting the faculties of the medical schools of Ohio, to inform the next State Convention how far they have adopted the recommendations of the National Convention.

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* Resigned, and Dr. Thomas Spencer of Geneva appointed in his place.

Medical Department of the University of Pennsylvania.—We are authorised to announce that the Medical Faculty of the University of Pennsylvania, in accordance with the recommendation of the recent Medical Convention, have resolved to extend their course of instruction. They propose to commence the regular lectures upon Monday the 18th of October, and to continue them until the last Saturday in March, thus adding four weeks to the previous term, and making the whole course about five months and a half. We understand, however, that it is designed to hold the commencement as usual, about the first of April, so that the candidates will not be detained later than in former years.

University of Pennsylvania—Resignation of Professor Hare.—Dr. ROBERT HARE has resigned the chair of Chemistry in the Medical Faculty of the University, which he has filled for nearly thirty years. The trustees, in accepting his resignation, adopted a complimentary resolution, acknowledging their deep sense of the eminent services which he has rendered to science and to the University, and their earnest wishes for his future happiness.

It is expected that his successor will be appointed early in the present month.

OBITUARY.

Died at New York, 29th April, 1847, JOHN REVERE, M.D., Professor of the Theory and Practice of Medicine in the Medical Department of the University of New York, in the 60th year of his age.

Professor REVERE was a native of Boston, and a distinguished graduate of Harvard University, of the class of 1807 His father was a well-known patriot of the Revolution, and no less remarkable for his private virtues than the importance of his public services. Dr. Revere pursued the study of medicine in the office of Dr James Jackson, of Boston; after which he repaired to Edinburgh, in the university of which he graduated. He commenced the practice of medicine in the city of Boston, but was soon compelled to remove to a southern location on account of frequent attacks of bronchitis to which he was liable. He established himself in Baltimore, where he pursued with great success the study of chemistry, in connection with other branches of science, and again visited Europe on business connected with a discovery which he had made in this science. From Baltimore he removed to Philadelphia, and was chosen Professor of the Theory and Practice of Physic in the Jefferson College. From that city he removed to New York, where he has filled, with quiet success, the same chair, in the Medical Department of the University.

Professor Revere was universally respected for the amiability of his private character, and held a very high rank among the successful teachers of medicine in our country. His manners were uniformly courteous and agreeable; he was a delightful companion and a faithful friend. He was ever actuated by a lofty ambition to excel in his profession, and his success was equal to his aspirations. He was eminently successful in communicating instruction, for he had a logical mind, and an unlimited command of language. His loss is a severe one to the Institution of which he was one of the brightest ornaments. As we expect to be favored with a biographical sketch of the deceased, for our next Number, we close by appending the following proceedings of the alumni and students of the University.

At a numerous *meeting of the alumni* and students *of the University of New York.* held in the Medical College, on Friday, the 30th April, 1847, for the purpose of expressing the deep sorrow felt by them at the decease of Professor J Revere, M.D., P. A. Aylett, M.D., was called to the chair, and A. C. Becker, M.E., chosen Secretary.

The Chairman appointed a Committee, consisting of Drs. Quintard and

Becker, and Messrs. Stanford and Harris, to carry into effect the object of the meeting, who presented the following resolutions, which were unanimously adopted :—

Whereas, an All-wise Providence has removed from among us our late beloved professor, John Revere, M.D., who has fallen in the midst of his usefulness, and left a void in the faculty of our Alma Mater, which can never be filled to a more perfect measure; Therefore

Resolved, that in token of our admiration of his talents, esteem for his virtues, and regret at his loss, we wear the usual badge of mourning for the space of thirty days

Resolved, that the committee address a letter of condolence to the family of the late Professor Revere.

Resolved. that the proceedings of the meeting be published in the medical journals and the city papers.

Ph. A. Aylett, M.D., *Chairman.*
A. C. Becker, M.D., *Secretary.*

Died at New York, May 19th, of typhus fever, Augustus Van Buren, M. D., æt. 23, Assistant Physician at Bellevue Hospital. Dr. V. B. was a young physician of more than ordinary promise, and ardently devoted to his profession. He contributed to our last No., and had been for some time engaged in preparing an Essay on *Ship Fever* for our pages. We mourn him as a valued friend and collaborator.

In Philadelphia, May 9th, George McClellan, M. D., formerly Professor of Surgery in Jefferson Medical College.

In Richmond, Va., May 1st, A. L. Warner, M. D., Professor of Surgery in the Medical College of Virginia.

In Cincinnati, in April last, Noah Worcester, M. D., formerly Professor in the Medical College of Ohio, and in the Cleveland Medical College.

In Charleston, S. C., Jan. 19, 1847, Dr. S. Sinkler, one of the Editors of the Southern Journal of Medicine and Pharmacy.

2.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

On the Structure and Function of the Sexual Organs. By ERNST HEINRICH WEBER.—I. It was advanced twelve years ago by Weber, that the vesicula prostatica, near the coliculus seminalis in the prostate, was a rudimentary uterus. At a later period, the same was discovered in the beaver, horse, dog, pig, and cat. In new born rabbits, the resemblance of both the external and internal genitals is so great, that the separation of males from females would be quite impossible, were it not for the divergence of the vas deferens from the tuba. In human hermaphrodites, with prevalent male genitals, the apparent uterus only consists of the more fully developed vesicula prostatica. In the infans androgynus, described by Ackermann, the uterus had not only the situation of the prostatic vesicle, but there could be observed, even on the os uteri, those openings of the ductus ejaculatorii, which are, in the usual cases, to be found on the caput gallinaginis, near the opening of the prostatic vesicle.

II. With regard to the glandular termination of the vas deferens, Weber considers it to be a special organ, which is most developed in the stallion. When investigating into the number of spermatic filaments, he found them very numerous in the vas deferens, less abundant in the finis glandulosus vasis deferentis, and still less in the vesicula seminalis. The function of the latter, therefore, cannot consist in collecting the spermatic fluid, but in furnishing a secretion to be mixed with it.

III. Concerning the function of the tubular uterine glands in the human female, Weber obtained the following results:—1. After conception, the mucous membrane of the human uterus gets softer, and arriving gradually to the thickness of 2-3‴, it is then called tunica decidua uteri. This metamorphosis of the mucous membrane is occasioned by the increase both of its vascular and non-vascular layer or epithelium. 2. In addition to the enlarged blood-vessels and tubular glands of the vascular layer, there are to be found scattered amongst them newly-formed elementary cells, some of which are nucleated 3. The tubular glands, which take a serpentine course, and are from 2-3‴ long, run, like the glands of the stomach, in a perpendicular direction to the inner surface of the mucous membrane, where they get more narrowed, and open into the tunica decidua, communicating to it the cribriform appearance. The opposite and close terminations of the same glands, are not unfrequently divided into two or three vesicles. 4. There is a considerable difference between the appearances in the human female, and in the mammalia. First, whilst the uterine glands of the dog and cat are increasing chiefly at the point where the placenta is to be formed, those of the human uterus seem to grow pretty equally on the whole inner surface of its base and body. Again, the tubular glands of the dog being considerably enlarged in their course, have the appearance of large and plicated sacs, whereas, in the human uterus nothing like this is to be seen. Lastly, in the pregnant uterus of the dog, the ramified villi of the chorion penetrate the openings of the tubular glands: nothing similar could be observed in the uterus of a woman whose pregnancy was of ten weeks' duration; nor is a like relation between the tubular glands and the villi of the human uterus even possible, as the simple shape of the former does not in any way correspond to the numerous branches and ramifications of the latter. The idea, therefore, that the villi of the chorion extends to the lobules of the uterine glands in the human female, as well as in the dog, is a mere assumption, unsupported by facts. We should be careful not to extend analogy further than is warranted by facts. Now the occurrence of the tunica decidua reflexa, particularly in the human female, whilst it is wanting in all other mammalia, renders it not unlikely that the other appearances also will exhibit some difference. 5. The placenta uterina of the human female differs from that of the dog in the following points : first, the coarse network of vessels which carries the maternal blood, passes through the whole placenta, and is composed of tubules, the walls of which are considerably thinner—their diameter, however, is about fifteen times larger than those of the dog. Secondly, a dense network of narrow embryonic capillaries gives origin to membranes and folds, whereas, in the human female, the dendritic ramifications divide ultimately into very thin filaments, having in some places button-like swellings. Thirdly, the blood-vessels of the human placenta are not capillaries in the usual signification of that term, their diameter varying from $\frac{1}{4}$-$\frac{3}{4}'''$, and even more. The arterial vessels, also, in correspondence with these enormous capillaries or veins, do not inosculate, but form, when passing to the placenta, a glomus arteriosus, composed of one artery only, which after several curvatures, terminates immediately in the before-mentioned enormous capillaries. 6. In the human placenta, as well as in that of the dog. the capillaries, which carry maternal blood, are in close contact with those carrying the embryonic blood. The manner of this contact, however, is very different. In the dog, the first-named vessels are involved and lined by the membranes and folds of the villi of the chorion, whereas, in the human placenta, the opposite relation is to be observed, viz., the ramifications and filaments of the villi of the chorion are lined by the thin walls of the above-mentioned large capillaries, which carry the maternal blood.—*Monthly Journ. of Medical Science.*

Discoveries of Edward Weber on Muscular Contraction. By Ernst Heinrich Weber.—As the employment of the ordinary galvanic apparatus for the purpose of exciting muscular contraction, produced this effect for far too short a period to allow any direct or microscopic observation of the changes so occasioned, Edward Weber used the magnetico-galvanic rotatory apparatus, and thereby produced muscular contractions of longer duration. On removing some muscular fasciculi from a frog, and placing them, when moderately flexed, on a slip of glass, they were seen to become straight at the moment of excited contraction, and continued so until the magnetic excitement and attendant contraction were interrupted. At that moment the previously straight fasciculi instantly exhibited very regular and elegant zig-zag turnings, the angles of which were formed by the combined and corresponding flexions of all the fibres entering the fasciculus. The contrary, therefore, strictly happens to what has generally been supposed to occur : the zig-zag appearance belongs to the moment of relaxation, and not to that of contraction. Of this perfectly novel fact the following explanation is given. The muscular fibres, which are occasionally flexed and nodulated when cut off, lose this appearance at the moment of contraction by the simultaneous shortening and thickening of their different portions. As soon, however, as the excitement becomes interrupted, the muscular fasciculi regain their former length, and being prevented by the friction of the glass from stretching to their whole extent, their extremities cannot be much moved, they become repeatedly flexed in consequence, and hence the zig-zag appearance. The nodulated swellings observed by Bowman are not occasioned by the vital action of the muscles, but by their absorbing the water in contact with them at their cut extremities. Further, according to microscopic observations on the muscles of vertebrate and invertebrate animals, as well recent as when treated by acetic acid, the fasciculi do not consist of segments, neither do the elementary fibrillæ seem to be composed of globules or discs. The appearance of transverse striæ are owing to the folds of a membrane or sheath that surrounds the fasciculi, and serves to facilitate the extension of the muscles within certain limits.

There is a great difference between the mode of action of the animal and organic muscles. The animal muscles contract the moment they are excited, either directly or through the nerves going to them, but they have no power of continuing or renewing the action when the stimulus is removed. Again, when the brain or spinal marrow is excited either directly or by stimulating a sensitive nerve alone, the muscular contraction does not follow immediately, but after a certain time, or not at all. Hence the passage of impressions to the nervous centres, and from thence to the muscular nerves, is not a direct one, but undergoes some interruption in the former. Daily experience also shows us that we do not start the very instant an unpleasant sensation of seeing or hearing is experienced, but some moments afterwards. The organic muscles, on the contrary, do not contract immediately on being stimulated; a certain interval always follows the excitation, either when direct or through their nerves, before they act. But contractions once produced continue for a considerable time after stimulation has ceased, and even other movements (peristaltic) are induced in neighboring muscular fibres. Hence the nervous centre of organic muscles is situated within themselves, and their movements are not regulated by the brain or spinal marrow.

The anatomical structure of the organic and muscular fibres is in close correspondence with this functional distinction, the striated ones belonging to the first, and the non-striated to the last. The œsophagus of birds and amphibia entirely destitute of striated fasciculi, manifest no animal motion, whilst that of mammalia (as the rabbit,) where the external and internal layers are composed of striated muscular fasciculi, exhibit distinct animal movements. In the cat, motions are of different kinds, according as the stimulus is applied to the upper, middle or inferior portion of the œsophagus, organic muscles being absent in the first, but present in the two last. Reichert discovered striated muscles in the stomach and intestinal tube of *Cyprinus tinca*, whilst the same organs in other species of Cyprinus, in fishes, and in the Vertebrata generally, are destitute of them. On stimulating the medulla oblongata, and divided vagus in the first named animal, it was found that a sudden but momentary movement was induced. The iris of birds also possesses striated muscular fasciculi, and the researches of E. Weber have shown that they possess animal movements. In the iris of the mammalia on the other hand, the radiated circular fibres present the characters of organic muscle, and the movements and kind of contractions observed when the iris is wounded agree with the function ascribed to them. There are some exceptions to the general law now pointed out. The most evident is, that the heart presents striated muscular fasciculi, whilst its movements are organic. It must be noticed, however, that whilst the structural resemblance is far from perfect, the rapidity and energy of the functional power seems proportionate to it. The muscles of mollusca and of worms, which are non-striated, must also be considered exceptional, together with the intestinal muscles of the crustacea and insecta which are striated.

Numerous experiments on frogs, birds, and mammalia have proved that, whenever the nervi vagi themselves, or the points of the brain from whence they originate are stimulated, the heart becomes relaxed, its rhythmic movements retarded, and at length interrupted. To produce this effect, however, it was necessary to excite both nerves of the eighth pair, as the application of a stimulus to one only produced no effect upon the heart. It was also found that galvanism applied to the orifice of the vena cava, produced an opposite effect to that occasioned by its application to the bulb of the aorta, as in the first case the movements of the heart were rendered slower, whilst in the latter they were rendered more frequent and energetic. This fact, which is of great importance in physiology and pathology, leads to the conclusion that the bulb of the aorta is more intimately connected with the sympathetic, and the vena cava with the vagi nerves. Weber also determined that on stimulating the medulla oblongata, and both vagi with the galvano-magnetic apparatus, and continuing its action, that the excitement could be propagated for forty-five minutes, after which period it ceased to be transmitted, and the heart commenced to palpitate, notwithstanding the continued galvanism, from the non-reception of impressions from the vagi.

Further experiments determined that the application of galvanism, or of strychnia to the spinal cord, produced tetanic contraction of the corresponding muscles, whereas when the same stimuli were applied directly to the animal muscles, or to their nerves, no tetanus is caused, owing to their containing no nervous centre. On galvanising the heart, our author observed tonic contraction, which he ascribes to the circumstance of its possessing a nervous centre in its substance. He found that on bringing the inner surface of the heart of a frog in contract with strychnia, (the blood having previously been emptied), its first effect was to accelerate the pulsations, and this was followed by tetanic contraction, and interruption of the pulsations. It is a well-known fact that the different portions of a frog's heart, viz., the ventricle, atrium, and inosculating portion of the cava, continue to beat, even when separated from each other. E. H. Weber has observed the same fact in the human subject in a case of murder. The increasing debility of the frog's heart is manifested more by the smallness of the contractions, than by their diminution in number. *Weber in Müller's Archives*, Heft 4 and 5, 1846.

SURGERY.

Treatment of Diseases of the Joints by Iodine Injections.—By M. Bonnet, *Lyons.*—This mode of treatment has recently been very popular amongst the French surgeons. M. Velpeau and M. Bonnet each seem to claim the priority in this mode of practice. It was in the treatment of hydrocele that M. Velpeau first used iodine; he considered that in addition to creating adhesive inflammation in the sac, it might be beneficial in removing serous collections, depending upon congestion or hypertrophy in some adjacent organ, and not only in this respect be more useful than wine, but also not be so liable as that fluid, to produce gangrene when infiltrated into the loose cellular tissue. Indeed, when he injected it into the cellular tissue of animals it seldom produced suppuration. He afterwards extended its application from simple hydrocele to congenital hydrocele, and hydrocele of the hernial sac; he also used it with success in two cases of serous cysts in the iliac fossa, in an encysted sero-sanguineous collection behind the uterus, and in serous cysts situated in various parts of the body, and in several cases of encysted goître. He further employed it in two vast purulent collections. He next tried it in tumors of the synovial sheaths of tendons. He afterwards determined to treat hydrarthrosis with iodine injections. In speaking of the mode of doing this, the British and Foreign Medical Reviewer observes:

To inject the knee-joint the leg must be extended. M. Bonnet pinches up a fold of the skin and passes in a hydrocele trocar at the base of this fold, in order that when the operation is complete the external and internal punctures shall not correspond, and thereby admit air. M. Bonnet also always holds the trocar as vertically as is consistent with the escape of the fluid, as air can scarcely enter while the trocar is full of liquid. M. Velpeau neglects these precautions, as he is satisfied by experience that the admission of a few bubbles of air is harmless. Both agree that it is not of much consequence at what point the joint is perforated, but prefer the upper and outer part of the joint, or rather whatever point fluctuation may be most evident at. M. Bonnet seems to use an ordinary trocar; M. Velpeau attaches great importance to employing an instrument not larger at the utmost than a hydrocele trocar. M. Bonnet merely allows six or eight drachms of synovia to escape, a quantity, in fact, equal to the bulk of the injection he throws in; M. Velpeau, on the contrary empties the joint as completely as he can. M. Bonnet in almost every case injected pure tincture of iodine, calculating on its being diluted by the fluid left in the joint; M. Velpeau injects tincture of iodine diluted, it is not precisely said to what extent, but it would seem with from two to four parts of water. M. Bonnet allows either the entire or the greater part of the fluid to remain in the joint after the injection has been performed; M. Velpeau, on the contrary, seems to allow the whole of the injection to escape—we say *seems*, for there is great want of precision in many of M. Velpeau's statements. M. Bonnet would in future prefer M. Velpeau's method, as it excites greatly less inflammation than occurred in his own cases.

[Considerable pain is felt during the operation, and inflammation in the joint, and fever ensue. In reporting one of his cases M. Bonnet observes :]

The inflammation ran on with alarming rapidity and intensity. The patient shrieked with pain during the entire day. Forty leeches were applied in the evening without giving any relief. The swelling, which was much greater than before the operation, was rapidly increasing. The tension of the skin was extreme, At seven in the evening, alarmed at the rapid increase of the swelling, I could devise no other expedient to restrain it than again plunging the trocar into the joint. And in another case, the inflammatory reaction was intense; during the night there was fever, restlessness, and even commencing delirium. The joint swelled, and the skin was red, tense, and burning; nausea and vomiting set in, and those symptoms lasted three days.

[Although M. Velpeau considers that the iodine injection never causes suppuration when injected into a close cavity, nor gangrene when it escapes in the cellular tissue, it appears that the experience of others does not agree with this, since both these occurrences have taken place, and death been the result. The reviewer adds :]

It appears, then, that the iodine injection may produce precisely the same mischiefs that may follow the employment of wine and other stimulant injections proposed to be superceded by it; and we fully agree with MM. Blandin Roux and others, that though no mischief is yet known to have occurred from injecting it into the joints, disastrous results must inevitably follow from perseverance in the practice. There are few proceedings in medicine or surgery, however hazardous, which cannot be supported by an array of successful cases; and we would just as soon infer the safety of injecting the knee-joint in hydrarthrosis from the cases we have enumerated, as we would infer the safety of passing a seton through the knee in the same disease from the result of ten cases reported to have been so treated with success by Dr. Muller.—(Gaz. des Hop., June, 1842.)

We have entered rather fully into the question of iodine injections, as they are now very extensively used on the continent, and the confidence with which M. Velpeau and others proclaim their constant safety and almost constant success, is calculated to induce others to imitate their boldness. We may here mention, as illustrations, how indiscriminately these injections are employed by some, that Dr. Suytgaerens, of Puyers, after performing paracentesis of the thorax in a case of empyema, repeatedly injected the pleura with an iodine injection, the result, we must add, was favorable, and the patient recovered.

More recently, M. Dieulafoy, of Toulouse, in a case of ascites, threw a quantity of iodine injection into the peritoneum, and, after diffusing it over the entire cavity, drew off about half the quantity of fluid injected. Febrile reaction, with slight pain in the abdomen, followed; cataplasms and mercurial frictions were directed. A month after, about half the cavity of the peritoneum seemed obliterated, but the fluid, having again collected superiorly, the injection was repeated with similar consequences. In about six weeks a small quantity of serum had accumulated, forming a circumscribed globular tumor; a third injection produced the same febrile and inflammatory symptoms. The ascites now finally disappeared, and was replaced by general anasarca, which yielded to purgatives. The patient ultimately recovered after a long convalescence, and experienced no inconvenience, save a dragging sensation in the abdomen on assuming the erect position. Finally, to conclude this subject, it may be noticed that, during the academic discussion so often referred to, it was suggested by MM. Laugier and Caventou, that the stimulant effects of diluted tincture of iodine was solely due to the alcohol it contained, and that the iodine was, so to say, mere surplusage. It may be, and we incline to the opinion, that there is nothing special in the local action of iodine, but unquestionably it powerfully contributes to the stimulant properties of those injections, as might be inferred from its action on the skin, and as it is directly proved by the fact, that M. Bonnet has sometimes employed an injection composed of iodine, iodide of potassium, and water, and found that it excited active inflammation.—*British and Foreign Med. Review.*

Statistical Researches on Operations for Cataract.—Between 1827 and 1842 Professor Jäeger operated on 1,011 patients affected with cataract. Of these 764 were lenticular, and 40 capsular. In 728 cases he performed extraction by the upper section; in 9, by the lower; in 58, by the partial. In 129, he operated by depression, and in 87, by division and laceration. Of the patients, 63 lost their sight, viz., 3 operated on by partial extraction. 33 by extraction through the upper or lower sections, 6 by division, and 21 by depression. Extraction, therefore, has furnished the larger proportion of success. It would be desirable, however, to know what motives induced Professor Jäeger to prefer one mode of operating in preference to another.—*Gazzetta Medica di Milano*, 26 Decembre 1846.

New Method of Operating for the Cure of Vesico-Vaginal Fistula. By M. Jobert.—M. Jobert has proposed and executed successfully a new plan for the cure of this distressing malady. We have formerly noticed the autoplastic operations performed by this surgeon for the purpose of obliterating vesico-vaginal fistulæ, to the best means of curing which he has devoted much attention. The occlusion of such fistulæ by means of autoplastic operations is necessarily attended with great difficulty, and, in the hands of most surgeons, would probably fail in the great majority of instances.

The method now proposed by M. Jobert is termed "*autoplastie par glissement.*" It consists in loosening the connexions of the posterior wall of the bladder by means of an incision made through the mucous membrane across the anterior part of the cervix uteri. In the words of M. Jobert—

"This operation consists in making a semicircular incision across the anterior part of the cervix uteri, at the point where the latter is joined by the vagina. The dissection is made from below upwards, and the edge of the bistoury is kept directed towards the cervix, so as to protect the bladder from danger. Immediately after this incision and the dissection, which easily isolates the base of the bladder, retraction of the anterior portion of the vagina takes place, and displacement forwards of the posterior region of the bladder. The apposition and re-union of the edges of the fistula then become easy; and thus the reparation of a very large breach may be accomplished."

The edges of the fistula, which are there found to approximate each other much more easily, are pared, and united by suture.—*Revue Medico-Chirurgicale de Paris*, January 1847.

M. Jobert has operated in this way in three cases of vesico-vaginal fistula with perfect success: and, in two of these cases, the usual method by cauterization had been previously found unavailing. A catheter is to be retained permanently in the urethra for the first two or three days, and is afterwards to be very frequently introduced to prevent any accumulation of urine in the cavity of the bladder.

The operation must be one of extreme nicety, and difficulty of execution. Great danger appears to be incurred on the one hand of wounding the posterior wall of the bladder, and on the other hand of approaching too nearly, in the incision, the fold of peritoneum lying between the uterus and bladder. Even with the precautionary measure of the use of the catheter, the risk of the approximated edges of the fistula being bathed by the urine must be great.

The operation appears, however, to have succeeded well in the hands of M. Jobert; and any proposal which may tend to the relief of these distressing and unmanageable cases, must be looked upon as of no small importance.—*London Monthly Jour. Med. for April.*

Case of Double Amputation, by M. Brouzet.—M. Brouzet relates the case of a man on whom he practised amputation of both legs below the knee, the one immediately after the other, on account of injuries inflicted by the wheel of a railway carriage. The patient suffered comparatively little from the double shock of the injury and the amputations, and made a speedy and perfect recovery.—*Revue Medico-Chirurgicale de Paris, Fevrier*, 1847.

It has been laid down as a precept by two French surgical writers, M. Velpeau and M. Vidal de Cassis, that the system being unable to stand the shock of a double amputation, two limbs should never be amputated at the same time, at least, in such cases of injury as necessitate amputation above the wrist and ankle joints. It appears to us that there are cases, in which no general rule can be laid down, and in which the surgeon must be guided entirely by his own discretion. The propriety of operative interference must depend on the features of each individual case. Two other cases are mentioned by M. Brouzet, of recovery from simultaneous double amputations. In the Hotel des Invalides at Paris, many veterans are to be seen enjoying good health, who have lost more than one limb in action, and many cases might be cited, where recovery has followed this severe mutilation.

We have heard of both limbs being amputated at the same moment, by different surgeons, in cases of this kind, but we are doubtful whether the shock to the system is less than when the two limbs are amputated successively.

Dislocation of the Lower Jaw.—M. Nelaton, Surgeon of the Hôpital St. Antoine, believes that the displacement forwards of the condyle of the lower jaw, in dislocations of this articulation, is much greater than is generally supposed, and that in the partial luxation, which can be produced at will by many, the condyle slips over the tubercle in front of the glenoid cavity.

But in complete luxation, the condyle is carried further forwards, and M. N. is of opinion that the extremity of the coronoid process becomes hooked round the inferior angle of the malar bone, where it is received into a small fossa behind the suture, which connects this bone with the superior maxilla. Some fibres of the masseter are probably torn, and become stretched over the extremity of the coronoid process, forming an additional obstacle to the reduction of the dislocation. Such a displacement cannot take place without preternatural relaxation, or rupture of the ligaments of the articulation.—*L'Union Médicale, Mars*, 1847.

Rhino-Plastic Operation, by M. Blandin.—In the same journal from which we extract the above, the history of a case is given, in which M. Blandin attempted the formation of a new nose. The entire nose had been destroyed by syphilitic ulceration. The flap of skin, which was intended to form the new nose, was taken from the brow as usual. When such cases are unsuccessful, the failure is generally attributed to deficient circulation in the flap. Dieffenbach, however, thinks on the contrary that the chief danger lies in the flap receiving too much blood, and engorgement taking place, and for this purpose he advises that the pedicle should not be left too broad, under the idea that too large a supply of arterial blood may be conveyed to the piece of transplanted skin.

M. Blandin, under this impression, adopted in the present case a suggestion of M. Lisfranc, which consists in continuing the incision on the left side as far downwards as possible, by which in all probability one or two more arterial twigs were divided than necessary. One advantage derived from this proceeding is the smaller amount of constriction from the twisting of the pedicle, which was the object M. Lisfranc had in view in recommending the prolongation of the incision. The case reported by M. Blandin proved, however, unsuccessful, the entire flap of the skin, which was to form the new nose, having become sphacelated on the second or third day after the operation. The results of this operation are at best very unsatisfactory, but when its performance is required we recommend that the pedicle should be left as broad as possible, and as little separated from its connexions as is compatible with leaving the neck of the flap unconstricted by twisting.

Results of the Operation for Strangulated Hernia, by Boyer and Manec.—In the hospital practice of MM. Boyer and Manec, since the year 1833, fifty-eight operations for strangulated hernia have been performed, the results of which are interesting as regards the propriety of employing *taxis*. Thirty of these cases were operated upon by M. Boyer. From 1834 to 1839, M. B. did not proceed to the operation, till prolonged attempts at reduction had been made: during this period, *nine* cases were operated on, of which *eight* died and *one* recovered. From 1839 to 1843, he employed the taxis to a much more limited extent—*seven* cases were submitted to operation, of which *four* died and *three* recovered. From 1843 to 1846, he had almost entirely abandoned the use of the taxis, and out of *fourteen* cases on which he operated, *four* died and *ten* recovered. M. Manec, on the contrary, during the same time, placed little reliance on the taxis, and uniformly proceeded almost at once to the performance of the operation. The results of this practice were, that of *twenty-eight* cases operated on, *two* died, and *twenty-six* recovered.

The practical deduction to be drawn from these statistics is, that the employment of the taxis is productive of much harm. No statement, however, is made as to the results of the cases, which were successfully treated by the taxis. To judge fairly of the good or evil, resulting from the attempts at reduction, the entire number of cases of strangulated hernia admitted into the hospitals should be given: and we doubt not that in such an aggregate of cases, the number of recoveries would be greater, where the taxis is moderately and judiciously applied, than where the operation is uniformly at once performed.

The conclusions drawn by MM. Boyer and Manec are, first, that the operation for hernia, performed at an early period, and before symptoms of peritonitis have declared themselves, is almost free from danger; and 2d, that peritonitis never occurs subsequently to the operation, if it has not been present before its performance.—*Revue Medico-Chirurg. Feb.* 1847.

M. Kün's New Instrument for the Diagnosis of Tumors.—M. Kün, Professor of Physiology in Strasbourg, presented to the Medical Society of that city, an instrument, the application of which is likely to produce the most beneficial results in the diagnosis of various kinds of tumor. It consists of an exploring needle, having at its extremity a small depression with cutting edges. On plunging this instrument into a tumor to any depth, we can extract a minute portion of the tissue of which its various layers are composed. In this manner a microscopic examination of the tumor can be practised on the living subject, and its nature ascertained before having recourse to an operation. We have proved the utility of this method of diagnosis on three occasions, and seen conscientious practitioners renounce an operation previously determined on, when the cancerous nature of the tumor has been demonstrated by the microscope.—*L' Union Medicale*, 1 *Avril*, 1847.

MIDWIFERY.

"*Hydatiginous Ovum or Hydatid Placenta.*—*Dr. Malcolm* showed a beautiful specimen of uterine hydatids. The quantity of hydatids, expelled from the uterus in this case, was very great. Their expulsion was preceded for some days by watery and colored discharges. The mother had several children previously.

"*Dr. Moir and Mr. Woodhead* mentioned cases of hydatiginous ovum, which they had met with. In Mr. Woodhead's case, there had been more or less hemorrhage observed for four months preceding the evacuation of the hydatiginous mass.

"*Dr. Simpson* showed an old specimen of hydatid ovum, where the embryo was extremely small; not larger than a pea; and the placenta enlarged into a mass of hydatids and fibrine (decolorized blood) weighing thirteen ounces at the time of its expulsion. The patient reckoned herself gone beyond the full time of utero-gestation.

"*Dr. Simpson* stated it as his opinion that the hydatiginous ovum or hydatid placenta was a morbid state of a compound character. 1. The alleged hydatids were, no doubt, merely the enlarged villi of the chorion. So far the affection was a kind of *malformation* from arrest of development, the villi of the chorion remaining of their early embryonic type, and continuing to increase, and grow under this retained type of structure. But 2. the cells of the villi, constituting the hydatid placenta, appeared at the same time to be generally broken up in their internal tissues, and distended by a morbid accumulation of fluid. So far we have *disease* added to malformation; and dropsy co-existing with the hypertrophied state of these structures. It would be difficult to decide whether the dropsy stood in the relation of cause or effect to the malformation; or whether both were not the effects of some common cause."—*Lond. and Ed. Monthly Journal for May.*

Two true Corpora Lutea in one Ovary—one Fœtus found.—Dr. Renaud presented an ovary containing two true corpora lutea, taken from the body of a woman who died of thoracic disease in her seventh month of pregnancy, and from whose uterus he had subsequently extracted the fœtus.

Each corpus luteum was fleshy-looking, and had a central radiating membrane. The corpora lutea were lobulated and enclosed between the proper ovisacs. The one was much larger than the other, yet each was sufficiently characteristic to prevent mistake.

During the seven months of pregnancy no unusual symptoms were experienced, and, although the uterus was closely examined, no traces of a blighted ovum could be found.

The decreased size of the bodies, in consequence of the advanced period of pregnancy, rendered them less satisfactory than could have been desired: they, however, had their value, and, if viewed in connexion with medical evidence in courts of law, were deeply interesting. If the leading distinctions between true and false corpora lutea, as recognized by some, and denied by others, were to be taken into consideration, and of the validity of which Dr. Renaud entertained no doubt, and whose opinions were already in print,* then the present case formed an exception to a general rule, most rare, and to the best of his belief the second only published, concerning the particulars of which there appeared to be no discrepancy.

Dr. Francis also brought forward an ovary in which was secreted a yellow body, in size about that of a pea, and which seemed to belong to the variety termed false, or menstrual, or periodical It was examined microscopally by Dr. Renaud, who found it to correspond with those bodies when about three weeks or one month old. The woman was for the nine months preceding death under the daily inspection of Dr. Francis, and during the entire of this period the catamenia had failed to appear. The preparation was brought before the society as an additional illustration, that these bodies are from time to time observed in the ovary, even when the outward evidences of menstruation are altogether awanting. It may be observed that twelve months had elapsed since the last childbirth.—*Lond. Med. Gaz.*

Galvanism in Labor.—Dr. Simpson expresses the opinion that galvanism does not exert any influence either in originating or in increasing uterine action. The experiments which led him to this conclusion were made on six women, in whom he carefully noticed the duration of the labor-pains, and of the intervals between their recurrence. He next repeated his observations with all the apparatus for galvanism prepared, but without establishing the contact; he then established contact, and lastly, renewed his observations after removal of the wires. From these experiments he infers that when uterine action has seemed to be excited by means of galvanism, this has either been a mere coincidence, or has resulted from the impression made on the mind, or been produced by the mechanical irritation of the os uteri, or of the surface of the abdomen by the conductors. These observations seem to have been made with great care, but can hardly, as yet, be allowed to outweigh the results made by Reil and Carus in their experiments upon animals, and the recent evidence in favor of the reality of the influence of galvanism afforded by some of the cases which Dr. Radford has recorded.—*Dr. West's Report on Midwifery.*

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* Monthly Journal of Medical Science, August, 1845.

MATERIA MEDICA.

Sub-Valerianate of Bismuth.—Righini of Oleggio, has devised a mode of forming the sub-valerianate of bismuth, which he describes as serviceable in painful affections of the stomach, in some neuralgias, and in chronic palpitations of the heart.

It is made by dissolving metallic bismuth in nitric acid, with a small addition of distilled water, and then decomposing the nitrate so formed by the valerianate of soda, any excess of nitrate of soda being removed by valerianic acid. The valerianate being dried, is then reduced to powder, and preserved for use in a well-stopped bottle.—*Journal de Chēmie* and *Gazette Médicale de Paris*, 13 Mars, 1847.

Nitrate of Strychnia, by external application, in certain forms of Gout.—Wendt recommends the nitrate of strychnia, in the form of ointment, in irregular gouty affections; for example, in gouty affections of the vertebral column, which, through the filaments of the great sympathetic, attack the chest, and give rise to symptoms imitating angina pectoris. The formula recommended is as follows:—Nitrate of strychnia 10 parts; axunge 8 parts: to be made into a perfectly homogeneous ointment, and applied by friction on the sides of the spine two or three times a day.—*Gazette Médicale de Paris*, 13 Mars, 1847.

Lime Water, in Chronic Inflammations of the Intestinal Canal.—M. Boisseuil insists on the great utility of lime water in various forms of chronic inflammation of the bowels, illustrating its beneficial effects by cases. In particular, he recites the case of a person, who, having suffered for six months under a chronic gastritis, had been subjected, without benefit, to many kinds of ordinary treatment, till he was put on the use of lime water, mixed with two-thirds of milk.—*Journal de Médecine de Bourdeaux*, and *Gazette Médicale de Paris*, 13 Mars, 1847.

OBITUARY.

Died, at Paris, May 12th, aged 60, from malignant intermittent fever, M. LISFRANC, surgeon-in-chief of the Hôpital la Pitié.

At Berlin, aged 55, Prof. WAGNER, of that University.

On the 4th May, at Tottenham, JOHN RAMSBOTHAM, M.D., in the 80th year of his age.

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Art. XXIII.—A Class Book of Botany, designed for Colleges, Academies, and other Seminaries. In two Parts. Part I. The Elements of Botanical Science. Part II. The Natural Orders. Illustrated by a Flora of the Northern, Middle, and Western States, particularly of the United States North of the Capitol, lat. 38° N. By Alphonso Wood, A. M. 2d Ed. Revised and Enlarged. Claremont, N. H. 1847. 12mo, pp. 645. - - - - - - 239

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TO READERS AND CORRESPONDENTS.

Several articles crowded out of the present number, will appear in our next. The article on the Medicinal Plants of the State, by the Editor, will be concluded in the November number. Communications are again solicited from our friends and contributors in all parts of the country. Those of a practical character will always have the preference.

We would inform the Editors of the "Dublin Quarterly Medical Journal," the "London and Edinburgh Monthly," the "Medical Gazette," the "Medico-Chirurgical," the "British and Foreign Medical Review," and all others on our exchange list, that our Journal has been regularly sent to them, sometimes through the mail, and sometimes through the house of Messrs. Wiley & Putnam Hereafter our Journal will always be forwarded through Messrs. Wiley & Putnam, and all expenses paid to London.

We have received since our last, the following works :

Outlines of the Veins and Lymphatics, with Short Descriptions. Designed for the Use of Medical Students. By John Neill, M. D., Demonstrator of Anatomy in the University of Pennsylvania, etc. Philadelphia. Barrington & Haswell. 1847. 8vo., with plates, pp. 29. (From the Publishers.)

Our readers will recollect two works of a similar kind to the above, by the same author, on the Arteries and Nerves. The present is a work on the same plan, in which all the principal vessels are given, with the names upon or near them, so as to avoid the inconvenience of the usual mode of reference. We think it a very useful work for medical students, for whom it is chiefly designed, as being well calculated to facilitate their studies, and obtain a clear and concise view of the Nervous and Lymphatic systems.

Lectures on subjects connected with Clinical Medicine. By P. M. Latham, M .D., Fellow of the Royal College of Physicians, and Physician to St. Bartholomew's Hospital. 2d Ed. Philadelphia. Barrington & Haswell. 1847. 8vo., pp. 158. (From the Publishers.)

This work has been received at too late a period for an extended notice, which must be deferred till our next No. It has, moreover, already received a favorable notice in our pages ; in which we recommended it as one of the ablest and most useful works of the day. We know no treatise on practical medicine, which has higher claims on the attention of the profession than this, none which, if carefully studied, will prove more advantageous at the bed-side. It is classical in style, replete with facts, rich in illustration, sound in doctrine, and a legitimate product of the Hippocratic school of observation.

Circular of the Cortlandt County Medical Society, in relation to the Organization of a District Medical Association. (From Dr. Hyde.)

Report of Committee on Charity and Alms House, on the Medical Department of the Alms House Department. New-York. 1847. pp. 39. (From the Secretary of the Board.)

Catalogue of the Annual Announcement of the Willoughby Medical College of Columbus. 1847.

Annual Announcement of the Medical Department of Illinois College at Jacksonville, Illinois. Session 1847. pp. 8. (From Dr. James.)

Laws relating to the Public Health, the Quarantine, Duties of Pilots, etc., for the Port, Harbor, and State of New-York, etc. Published by order of the Health Commissioners. New-York. 1846. (Dr. Van Hovenburg.)

The Pennsylvania System of Prison Discipline Triumphant in France.—Philadelphia. 1847. 8vo., pp. 24. (The Publisher.)

Proceedings of the Ohio Medical Convention, held at Columbus, on the 18th of May, 1847. Columbus. 1847. 8vo., pp. 59. (From the President.)

Cases of Inhalation of Ether in Labor. By Walter Channing, M. D. 2d edition. 12mo., pp. 44. (From the Author.)

The Power of the Soul over the Body, considered in relation to Health and Morals. By George Moore, M. D., Member of the Royal College of Physicians. New-York. Harper & Brothers. 1847. 12mo., pp. 270. (From the Publishers.)

The American Practice Condensed, or the Family Physician, etc. By W. Beach, M. D. 8vo. New-York. 1847. pp. 800. (From the Author.)

Illustrations of Medical Botany, consisting of Colored Figures of the Plants affording the important articles of the Materia Medica, and Descriptive letter-press. By Joseph Carson, M. D., etc. Philadelphia. Robert P. Smith, 144 Chesnut street. 1847. 4to. (From the Publishers.)

The Half-Yearly Abstract of the Medical Sciences; being a Practical and Analytical Digest of the Contents of the Principal British and Continental Medical Works, published during the preceding six months, etc. Edited by W. H. Ranking, M. D., assisted by W. A. Guy, M. D., George Day, M. D., Henry Ancell, M. D., and W. Kirkes, M. D. No. V. From January to July, 1847. (From the Publishers, Lindsay & Blackiston, Philadelphia.)

An Analysis of Physiology; being a Condensed View of its most important Facts and Doctrines. Designed especially for the Use of Students. By John J. Reese, M. D., etc. Philadelphia. J. G. Auner. 1847. 12mo., pp. 314.

A Class Book of Botany; designed for Colleges, Academies, and other Seminaries. In two parts. Part I. The Elements of Botanical Science. Part II. The Natural Orders; illustrated by a Flora of the Northern, Middle, and Western States; particularly of the United States north of the Capitol. By Alphonso Wood, A. M. 2d edition. Revised and Enlarged. Claremont, N. H. 1847. 12mo., pp. 645.

Several other works received, will be noticed in our next.

The usual Periodicals have also been received.

Erratum.—Page 125, July No., for M. B. Brown, of Pitt county, read Dr. William B. Brown, etc.

THE NEW-YORK
JOURNAL OF MEDICINE.
FOR SEPTEMBER, 1847.

PART FIRST.

Original Communications.

Art. I.—*A Catalogue of the principal known Medicinal Plants, native and exotic, growing in the State of New-York, with brief Notes on their Composition, Properties, etc.* By the Editor.

The State of New-York, embracing an area equal to the whole of Great Britain, abounds in natural resources of an almost inexhaustible character; furnishing as many incitements to mental and physical labor, as any territory of the same extent on the habitable globe. These resources are, through the liberality of the state government, and the enterprise of private individuals, becoming rapidly developed, and in a few more years, at farthest, we shall doubtless have the materials for acquiring a very complete knowledge of the entire natural history of the state. We have thought that we should do our readers a service, and add our mite towards the advancement of this great work, if we presented in our pages, in a moderate compass, as full a list of the medicinal plants of the state, as our present means of information would enable us to supply; and we have accordingly prepared such a catalogue from all the sources within our reach; which we now offer to the profession. In doing this, we have drawn largely from the recent "*Flora of the State of New-York*," by Dr. Torrey; without which, indeed, the work could not have been accomplished. We have also followed Dr. T.'s arrangement, as the best within our knowledge. One object of our catalogue is, to aid the profession throughout the state, in further investigating our indigenous *materia medica;* and to this end, we have adopted the natural system of arrangement, as the only one which can serve as a useful guide to the medical man in pursuing the study of this interesting science. By comparing the medicinal properties of all the plants, belonging to the same natural order, he will be able to understand how far botanical affinities aid in arriving at a knowledge of their therapeutic effects, and to avail himself of these analogies in prosecuting further researches.

The whole number of flowering plants hitherto discovered in this state, according to Prof. Torrey, is about 1450 species. Of these about 1200 are herbaceous, and 150 ornamental. We have 250 species of woody plants, including eighty that attain the size of trees. There are also about 150 species of plants that are known to possess medicinal properties. Of exotics, now naturalized, we have 160 species, many of which have probably been introduced with grain, and other agricultural products, from abroad. Of such, are nearly all the weeds which prove so troublesome to the farmer. To the same source we are also indebted for many of our useful species, as most of our different grasses, which spring up spontaneously on every hand.

Of *Ferns* we have about sixty species belonging to the Flora of the state, some of which are medicinal. The *Male Fern* does not grow within the limits of the state. Our *Mosses*, *Liverworts*, *Lichens, and Sea-weeds*, have as yet been but very imperfectly investigated ; though many of them would undoubtedly furnish valuable resources to the medical man. When these have become more fully known, we shall no longer send to Iceland, Ireland, and the East Indies, for mucilaginous mosses, and other remedies of this class. Our *Fungi* are almost innumerable, constituting, probably, at least 3000 species, but few of which have been thoroughly studied. Here is a wide field for such as wish to distinguish themselves by making discoveries in a *terra incognita*. At present our knowledge scarcely suffices to enable us to distinguish such as are poisonous from those which are edible and nutritious. Where is the genius, which is to illustrate this dark region? Where the man, whose name is to be connected with this branch of natural science, in all future time?

It is not to be supposed, that the botany of this state is as yet fully explored. A large majority of our phenogamous plants have undoubtedly been discovered ; but yet we believe that numerous interesting plants of this class yet remain undetected, besides thousands of the cryptogamic order. The geological features of our state are greatly diversified, and so is its range of temperature ; and the geographical range of plants is as extensive, being governed by both these circumstances. Already we can number as many species as are found in the whole of New England. But we have mountainous and alpine regions in our state, elevated some 6000 feet above the ocean, which furnish an alpine vegetation, and which yet remain almost unexplored. We have many plants on our Atlantic borders, as Long Island, which are found no where else in the state ; and the same remark will apply to the valley of the Hudson, and to our mountainous and western and northern regions. We have many marine plants growing on the borders of our northern lakes, showing that their waters were formerly saline. According to Dr. Torrey, our most numerous dicotyledonous orders are the RANUNCULACEÆ, which constitute about 1-38th of the flowering plants ; the CRUCIFERÆ, 1-45th ; the LEGUMINOSÆ, 1-26th ; ROSACEÆ, 1-25th ; UMBELLIFERÆ, 1-39th ; COMPOSITÆ, 1-9th ; ERICACEÆ, 1-34th ; LABIATÆ, 1-32d ; SCROPHULARIACEÆ, 1-39th. Of monocotyledonous plants there are but three large orders, viz., ORCHIDACEÆ, which form about 1-39th of our flowering plants ; CYPERACEÆ, 1-9th, and GRAMINEÆ, 1-12th ; which proportions vary but little from the average of the whole Flora of North America.

We have omitted the botanical description of the different orders, genera, and species, as it would have extended our article beyond the limits of our pages; the reader, moreover, is supposed to be furnished with *Torrey & Gray's* "*Flora,*" *Eaton & Wright's* "*Manual,*" *Wood* or *Beck's* "*Botany,*" with the aid of which he will be easily enabled to identify any given species. The student in his walks for exercise, and the country practitioner in his daily rides, will find an abundant source of amusement and mental recreation, in studying the various plants which may be presented to their observation.

DIVISION I.—FLOWERING OR PHENOGAMOUS PLANTS.

CLASS I.—EXOGENOUS PLANTS.

SUB-CLASS I.—POLYPETALOUS EXOGENOUS PLANTS.

NATURAL ORDERS.

Ranunculaceæ, *Juss.*—(The Crow Foot Tribe.)

The plants belonging to this order are generally acrid and caustic, though they vary in their physical properties. In some of them we detect a peculiar acrid principle, of a volatile nature, dissipated by heat, or by simple drying; neither acid nor alkaline; in others, as the *Aconitum* and *Delphinium*, the active ingredient is an alkaloid, highly deleterious even in minute doses. In some, the only marked properties are those of the pure bitters, as in *Coptis* (Gold Thread) & *Hydrastis.*

Clematis, (Virgin's Bower,) three species in the state. Ochroleuca; Virginiana; and Verticillaris. The Virg. has been considerably employed as an emetic, diaphoretic, and alterative. Most of the species have a somewhat acrid taste, and are vesicant; externally as revellants, and externally and internally in the treatment of chronic rheumatism. An infusion of the bruised leaves and flowers forms a good lotion for the removal of spots and freckles from the skin, and a decoction of the root is useful as a purge in hydropic cases.

Anemone, *Linn.*, five species. Nemorosa, *Linn.* Cylindrica, *Gray.* Virginiana, *Linn.* Multifida, *Poir.* Pennsylvanica, *L.* The medicinal properties of Anemone are similar to those of the *Clematis,* only more active. The *Nemorosa* acts as a poison to cattle, producing bloody urine and convulsions. An ointment of it speedily cures *Tinea capitis.* In the recent state most of the species are acrid and rubefacient. They contain a peculiar crystallizable principle, called *anemonin*, which is converted into *anemonic acid*, by the action of alkalies. The A. Virginiana, *Linn.*, (Thimble weed), is supposed to possess the power of curing the bite of the Rattlesnake. A decoction of the root of the *Nemorosa,* would probably prove useful in chronic rheumatism.

Hepatica Triloba, *Chaix.*, (Liverwort or Liverleaf) A mild, demulcent, tonic and astringent; slightly diuretic and deobstruent, scentless and almost insipid. A decoction of it may be drank *ad libitum.* Its medical properties are very slight.

Ranunculus, *Linn.*, (Crowfoot Butter-cup.) Of this we have fourteen species, nearly all of which are more or less acrid and caustic, when fresh, but nearly inert when dried.

The Flammula, *Linn.*, (Spearwort,) which grows in low wet grounds and ditches, is one the most acrid of the genus, and is sometimes employed as a vesicant, and the distilled water as an emetic. Most of the species, when applied to the skin, in a fresh state, act as vesicatories; they are apt, however, to cause ulcerations difficult to heal; useful as counter-irritants in rheumatism, neuralgia, etc., or whenever we wish to make a powerful impression on the surface. The acrid principle is volatile, dissipated by heat or drying, and may be separated by distillation. When chewed, the plant excites violent inflammation in the mouth and fauces, and if swallowed, a burning sensation in the stomach, and inflammation. None of the species should be used internally. The *bulbosus* and *acris* are among the most acrid. Decoction inert.

Caltha Palustris, *Linn.*, (Marsh Marigold), used as a pot-herb. A syrup prepared from it is a popular remedy for coughs. Slight medicinal properties.

Trollius Laxus, *Salisb.*, (Globe Flower,) has the same properties as the *Ranunculus.*

Coptis trifolia, *Salisb.*, (Common Gold Thread). A well-known herbaceous plant, with perennial roots, of a bright yellow color, growing in swamps and boggy woods. A pure and powerful bitter without any astringency; more palatable than any of the pure bitters, imparting its virtues to water and alcohol; useful in all cases where a pure tonic is indicated, also as a local application in aphthous and other ulcerations of the mouth. A very useful stomachic in atonic dyspepsia and loss of appetite, in form of infusion or tincture. Its virtues depend on a bitter extractive matter, which is precipitated by nitrate of silver and acetate of lead. Contains neither resin, gum, nor tannin. Dose of substance, 10 to 30 grs.; of the tincture ʒj., prepared with ℥j. of root to O.j. diluted alcohol. Might be substituted in many cases for exotic bitters.

Helleborus* viridis, *Linn.*, (Green Hellebore). This is an exotic, but naturalized on Long Island. Its medicinal properties, like those of the other species of Hellebore, do not depend, like the Ranunculus, on an acrid volatile principle, but a permanent resinous substance, which is weakened but not destroyed by drying. Like the *H. niger*, the *viridis* is a hydragogue purgative and emmenagogue, and equally valuable; if anything, more certain and energetic. The acrid properties of the fresh root are owing to a volatile acid, similar to the *cevodic*. Chiefly useful as an emmenagogue in cases of torpid function; an alterative deobstruent in chronic rheumatism, in form of *tincture.*

Delphinium,† *Linn.*, (Larkspur). We have one species of this exotic naturalized, the Consolida, *Linn.*, (the common Larkspur of our gardens,) which owes its active properties to a peculiar alkali, *delphinia*, which resides chiefly in the seeds, a tincture of which has been recommended in asthma, calculus, and as an anthelmintic, in doses of 20 to 30 drops. It is very active, in small doses, exciting nausea, vomiting, and inflammation of the mucous membrane. A decoction of the flowers was formerly considered efficacious in diseases of the eyes. The tincture will speedily destroy lice in the hair. *Root* the only officinal part, although all parts are endowed with an acrid and bitter principle, which is more abundant in the seeds, which also contain much oil. The Larkspur is too harsh and violent in its operation for internal use, and is now chiefly employed in veterinary practice, to destroy vermin on horses and other animals. The name *consolida* was given to the above species from its supposed efficacy in the healing of wounds.

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* From the Greek, *helein*, to cause death, and *bora*, food, the plant being poisonous.

† From the Greek, *delphin*, a dolphin, from the shape of the upper sepal.

ACONITUM,* *Linn.*, (Wolfsbane). We have one native species of this plant, according to Major Leconte, growing in this state, (Chenango county), viz., the UNCINATUM, *Linn.*, which has bright blue flowers, and a tuberous root. Like all the other species, it contains a peculiar alkaloid, of a very active nature, *aconitine.* The NAPELLUS, *Linn.*, the officinal species, is cultivated as an ornamental plant in our gardens. Its active properties are considerably lessened by cultivation. *Root* most powerful, though all parts of the plant are active.

Internally, aconite operates powerfully on the cerebro-spinal system, diminishing its power, and thus producing to a greater or less extent, paralysis of sensation and motion. Applied externally, it first produces heat and tingling, then numbness, or loss of feeling; hence useful in neuralgia, rheumatism, and other painful local affections. Owing to its extreme activity, it should be used internally with great caution. Dose of powdered leaves, one tò two grs.; extract, half a gr. to one gr.; and of the tinct., six to twenty drops.

ACTÆA,† *Linn*, (Baneberry). We have two species of this genus growing in this state, viz., the RUBRA (*Bigel*) and the ALBA (*Bigel*), both of which go under the name of *White Cohosh.* Of the one, the berries are of a bright *cherry-red*, and of the other, *milk-white.* The *root* officinal.

Medical and physical properties of the two species, nearly identical. The *Actæa* is purgative and emetic, in small doses alterative. Dr. Torrey states that it is a mild astringent and tonic. This plant is often confounded with the *Cimicifuga*, and employed in the place of it. This has arisen from the fact that Linnæus placed *Cimicifuga* in the class *Actæa;* though *Pursh* afterwards formed it into a distinct genus. They are now properly ranked as two distinct genera. Its properties deserve further examination.

CIMICIFUGA,‡ *Linn.*, (Bugbane-Cohosh). One species grows in this state, the RACEMOSA, *Ell.*, (Black Snake-root, Black Cohosh, Rattle weed), the *Macrotys* of *Rafinesque.* The *root.* This is the *true Cohosh*, and is a very useful medicine in many diseases; much used by the Indians as emmenagogue, and in rheumatism. A stimulating tonic, increasing the cutaneous, urinary, and bronchial secretions, although slightly narcotic; chiefly valuable in rheumatism, chronic affections of the liver and lungs; useful as an alterative, in combination with iodine, in many chronic diseases; good diaphoretic; used by the Indians as an antidote against the bite of the rattlesnake; a mild sedative to the nervous system. In large doses, produces vertigo, impaired vision, nausea and vomiting. and a reduction of circulation; useful in dropsy, hysteria, chorea, and early stages of phthisis. Dose of saturated tincture, ʒ i. to ʒ ij.; of decoction, made with ℥ i. of root to O.j.

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* From Acone, a town in Bithynia.

† From the Greek, *akte*, elder, which its leaves resemble.

‡ From the Latin, *cimex*, a bug, and *fugo*, to drive away.

water; O.ss. to O.j., in 24 hours. Its powers depend on a somewhat volatile oil and bitter resin, both soluble in alcohol, and partly so in water.

ZANTHORIZA,* *Marsh.*, (Yellow Root). We have one species, the APIIFOLIA, which has a secondary place in the United States Pharmacopœia. It is tonic, and resembles very closely columbo, quassia, and the other simple tonic bitters. May be profitably used in some cases. Root is from three inches to one foot long, half an inch thick, and intensely bitter; imparts its color and taste to water; qualities depend on a bitter gum and resin; given in decoction, tincture or powder.

HYDRASTIS† CANADENSIS, *Linn.*, (Yellow Root). A powerful tonic bitter. A decoction of root and fresh juice much used in ophthalmia of a chronic kind; powdered root a popular application in cancer; slightly narcotic; powdered root said to blister; given in tincture, powder, and decoction. Its virtues deserve further investigation. Used by the Indians as a permanent yellow dye.

The above are all the genera of RANUNCULACEÆ growing in the State of New-York, which are known to possess medicinal properties. There are, indeed, but two other genera, the AQUILEGIA, *Linn.*, (Columbine), and THALICTRUM,‡ *Linn.*, (Rue Anemone), belonging to this natural order, in the state, and these, so far as known, are entirely inert. It will be seen, that although there is a general resemblance in the properties of the different genera, yet that, in some instances, there is a striking dissimilarity, as between the Coptis and Zanthoriza, pure bitters, destitute of acridity, and the powerfully acrid Aconite and Hellebore. Whatever, therefore, may be the external or internal natural structural affinities, we perceive that a knowledge of the medicinal properties of one plant of any natural order, is not always a safe guide to those of another, belonging to the same order.

ORDER II. MAGNOLIACEÆ, *Juss.*—(THE MAGNOLIA TRIBE.)

MAGNOLIA‖ GLAUCA, *Linn.*, (Common Magnolia Sweet Bay). This tree, from 8 to 30 feet high, the only species of the genus, is found in cedar swamps on Long Island, but not elsewhere in the state. *Bark*, stimulating, aromatic, tonic, and diaphoretic, used by the Indians in autumnal fever and rheumatism. The warm decoction acts as a gentle laxative, then as a diaphoretic; the cold decoction, powder, or tincture, as tonic; hence successfully used in intermittent fever, and remittents of a typhoid type, etc.—A *tincture* of the cones and seeds useful in chronic rheumatism, and as a prophylactic against intermittents. Dose of powdered bark, ʒss. to ʒj., decoction or infusion, *ad libitum*. The bark affords a green resin, a volatile oil, and a peculiar crystallizable principle analagous to *Liriodendrin*.—The other species of magnolia possess similar properties.

M. ACUMINATA, *Linn.*, (Cucumber tree). Grows in middle and western parts of the state, medicinal virtues same as former. The TRIPETALA (Umbrella magnolia) probably grows in our southern tier of counties, as it is found in Pennsylvania.

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* From the Greek, *xanthus*, yellow, and *rhiza*, root.

† From the Greek, *hudor*, water, from its growing in moist places.

‡ From the Greek, *thallo*, to be green, or flourishing.

‖ Named in honor of Professor Magnol, a French botanist.

LIRIODENDRON TULIPIFERA, *Linn.* Grows in this state; common names, tulip tree, poplar, American poplar, etc. Medical properties closely resemble those of the magnolia—diuretic, diaphoretic, tonic, antiperiodic, anthelmintic. Bark should be collected during winter—dose ʒj. to ʒij. pulverized. Taste pungent, aromatic, bitter. Dr. Emmet discovered in the bark of this tree a new principle which he called *Liriodendrine*, solid, brittle, and inodorous at 40°, fusible at 180°, and volatile at 270° F. Soluble in alcohol, consists of a resin and volatile oil. Infusion best form of administration.

This article has been used with success in intermittents, dyspepsia, chronic rheumatism, and wherever a mild stimulant tonic is indicated. These two genera are all that are embraced in this order that belong to our state, and the same virtues belong to both.

ANONACIÆ, *Juss.*—(CUSTARD-APPLE TRIBE.)

The order ANONACIÆ (CUSTARD-APPLE TRIBE) furnishes but one plant indigenous to our state, viz., UVARIA TRILOBA, which is found in Monroe, Niagara, and Chautauque counties. It occurs as a shrub or tree from 6 to 10 feet high, with a smooth grayish bark, slender branches, and leaves 6 to 8 inches long, 2½ to 3½ inches wide, on short petioles; flowers purple, mixed with yellow; fruit oval, 2 to 3 inches long, and yellowish. The medical properties of this plant have not been tested in this country; but they deserve investigation, from the fact that the same genus in Java, possesses powerfully-stimulating, aromatic properties, and the same probably belong to it here.

MENISPERMACEÆ, *Juss.*

The COCCULUS or MOONSEED TRIBE, includes the *Cocculus indicus;* the *Columbo; Pareira brava*, etc. North America furnishes six, the state of New York, one genus belonging to this order. They contain narcotic, or bitter tonic properties, or both combined.

MENISPERMUM* CANADENSE, *Linn.*, (Canadian Moonseed). Not an uncommon plant in this state; found on the banks of rivers, woods, and in thickets. It is a climbing plant, and the root possesses very valuable tonic and diuretic properties. In Virginia, it is employed extensively by physicians and in domestic practice, as a substitute for sarsaparilla in scrofulous and other chronic affections; as an alterative. Deserves further trial.

BERBERIDACEÆ, *R. Brown.*

The BARBERRY TRIBE furnishes four genera in our state, all of them possessing valuable medicinal properties, viz., BERBERIS, LEONTICE, PODOPHYLLUM, and JEFFERSONIA.

BERBERIS† VULGARIS, *Linn.*, (Common Barberry). A shrub, 3 to 8 feet high, leaves of a bluish green color, acid; flowers pale yellow; berries red and very acid; a naturalized exotic. The berries have a grateful, sour, astringent taste, and contain malic and citric acids; they are refrigerant, astringent, and antiscorbutic, and useful in febrile diseases, in the form of drink. The fruit is often made into a sweetmeat, and the jelly mixed with water, makes a grateful drink.

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* From *mene*, the moon, and *sperma* seed; the seeds being *lunate.*

† *Berberys*, the Arabic name of the plant.

Root and inner bark are used for a yellow dye; the coloring principle is called *berberin;* this may be isolated in the form of distinct crystals, and, in doses of from one to ten grains, acts as a tonic and purgative; cultivated in gardens; useful as a wash in aphthous sore mouth; Griffith says, it acts like rhubarb, and with equal promptness and activity.

Leontice Thalictroides, *Linn.*, (Blue Cohosh, Papoose Root, Squaw Root). Much employed by root-doctors and empirics, formerly used by the Indians, from whom they pretend to have learned its medicinal properties. It is demulcent, diuretic, emmenagogue, and antispasmodic; and has been employed with success in rheumatism, dropsy, amenorrhea, and nervous disorders. The Indians think it facilitates parturition. The plant has never been analyzed; but well deserves a more careful investigation.

Podophyllum peltatum,* *Linn.*, (May-apple. Mandrake, Hog Apple). A very certain and somewhat drastic cathartic, resembling jalap in its mode of operation, inducing watery stools, in doses of from ten to thirty grains, of the powdered root. Root contains a peculiar principle, *Podophylline*, which belongs to the same group as *salacine;* also *resin;* to which its medicinal properties are owing. Combined with bitartrate of potass, this article is useful in the treatment of dropsy, rheumatism, and scrofulous affections. The extract in small doses is said to diminish the pulse, and relieve cough; hence employed in hemoptysis, catarrh and other pulmonary affections.—(*Officinal*, U. S. P.)

Jeffersonia† diphylla, *Pers.*, (Twin Leaf, Rheumatism Root). The root of this plant is stimulant, diaphoretic, diuretic, and antispasmodic, highly useful in chronic rheumatism; hence its popular name. An infusion has been employed with success in chronic ophthalmia; also as a detergent wash in foul ulcers, and cancerous sores; also possesses decided alterative properties, and deserves trial in cases where such remedies are indicated.

Cabombaceæ, *Richard.*—(The Water-Shield Tribe.)

This furnishes the Brasenia peltata, *Pursh*, (Water-Shield,) an astringent demulcent in pectoral and bowel complaints. Plant abounds in mucilage, which possesses similar properties to the Irish moss, and might be substituted for it.

Nelumbiacæ, *Bartl.*—(Sacred-Bean Tribe.)

Nelumbium luteum,‡ *Wild.*, (Great Yellow Water-lily). The only plant furnished by this order in our state, is found in Big Sodus Bay, Lake Ontario. The rhizomes resemble those of the sweet potato, and are as farinaceous, agreeable and wholesome as the potato; found 12 to 18 inches below the surface of the earth, nutritious rather than medicinal; used as food by the Tartars and Indians; root contains large quantities of fecula.

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* From the Greek *pous*, a foot, and *phyllon*, a leaf; the leaf resembling the foot of some birds.

† Named after Mr. Jefferson.

‡ *Nelumbo*, the Ceylon name.

NYMPHEACEÆ, *Salisb.*—(POND-LILY TRIBE.)

NYMPHEA ODORATA,* *Ait.*, (Great White Water-lily). Root or rhizome is used for dying a brown color; bitter to taste; powerfully astringent and tonic; contains much tannin and gallic acid; fresh root useful as a discutient poultice; forms a good injection in leucorrhea, gonorrhea, and dysentery, etc.; considered aphrodisiac by the ancients; a popular remedy in bowel complaints; and useful as a gargle in ulcerated sore-throat; one of the Thompsonian remedies.

NUPHAR LUTEA, *Smith*, (Yellow Pond-lily, small flowered).

NUPHAR ADVENA,† *Ait.*, (Common Yellow Pond-lily). These two species possess similar properties with the *nymphea*, and may be employed in same cases; they should be further investigated. The *advena* is a popular tonic, and fresh root forms an excellent poultice when bruised; contains much starch. The roots of all the water lilies are edible; though somewhat acrid when raw, they are bland and nutritious when cooked; petioles and leaves are eaten for greens; leaves employed to dress blisters, cooling and emollient; flowers have proved successful in dysuria.

PAPAVARACEÆ, *Juss.*—(THE POPPY TRIBE.)

Three species only furnished by this tribe in our state are medicinal.

SANGUINARIA‡ CANADENSE, *Linn.*, (Blood Root). An acrid narcotic, acting as a powerful emetic, in doses of x. grs. of the powdered root, succeeded by burning heat of stomach, vertigo, prostration, etc. In small doses, deobstruent and expectorant; useful in chronic pulmonary and hepatic cases, and chronic rheumatism. It is too stimulating for acute attacks. Owes its powers to an alkaloid principle, *Sanguinarina*, discovered by the late Dr. Dana. Dose of powdered root, as expectorant, two to three grains; of tincture, gtt. x. to xxx.; we have known ʒ ss. prove fatal. To be used cautiously, and in combination with ipecac., antimony, or opiates.

PAPAVER SOMNIFERUM, *Linn.*, (Common Poppy), growing in waste grounds, scarcely naturalized. This is the opium poppy, too well known to need description here.

CHELIDONIUM MAJUS,‖ *Linn.*, (Common Celandine). A very valuable plant, and altogether too much neglected. A stimulating aperient, diuretic, deobstruent and sudorific; useful in chronic, hepatic, and bronchial affections, and cutaneous diseases; also in scrofula. Externally, the fresh juice is used as a caustic to remove warts: also to stimulate old and indolent ulcers, and promote healthy granulations; also to remove specks from cornea, diluted with some bland fluid. Cataplasm of fresh leaves useful as an application in herpes and psora. Dose of dried root, ʒ ss. to ʒ j.; of fresh juice, 30 to 40 drops, with water; watery extract, five to ten grs.; vinous tincture, ʒ j. to ʒ ij.

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* From its inhabiting the water like the *nymphs*.

† The ancient name attached to it by Dioscorides.

‡ From *sanguis*, blood.

‖ From *chelidon*, the Greek for swallow—as the plant flowers about the time this bird arrives in the spring.

Fumariaceæ, *De Cand.*—(The Fumitory Tribe).

This order furnishes the common *fumatory*, Fumaria Officinalis,[*] the herbage of which is bitter, slightly diaphoretic and aperient. The juice was formerly administered in cutaneous diseases, and obstructions of the liver. The Dicentra,[†] *Endl.*, Corydalis and Adlumia, *Raf.*, which formerly belonged to the above genus, are made distinct genera by Dr. Torrey, and they all possess similar properties. The common fumitory abounds in saline substances and bitter extractive. It is gently tonic; in large doses, laxative and diuretic; in smaller doses, alterative. A good remedy in visceral obstructions, particularly of the liver, and in scorbutic and cutaneous affections. Cullen gave the expressed juice ℥ ij. in a day. It may be given in decoction of the acrid or fresh leaves, or in form of extract.

Cruciferæ, *Juss.*

The Cruciferous Tribe furnish several medicinal plants in this state, chiefly exotic, and possessing similar properties. Nasturtium Palustre,[‡] *D. C.*, (Marsh Cress). N. Hispidum, *D. C.*, (Hispid Cress). N. Natans, (Floating Cress). Barbarea Vulgaris, *R. Brown.* (Scurvy Grass). Turritus Striata,[||] *Graham*, (Tower Mustard). Arabis Hirsuta, *Scop.*, (Hairy Wall-Cress). A. Dentata, (Toothed Wall-Cress). A. Lyrata, Levigata, and Canadensis. All anti-scorbutic, and useful in visceral obstructions. Some of them used as salad. The expressed juice may be given in doses of ℥ j. to ℥ ij.

We have three species of Cardamine[§] or Bitter Cress, possessing same properties; also three species of Dentaria, (Tooth-wort), of which the *Dyphilla*, (Pepper-wort), is well known for its pungent rhizoma, which is owing to a stimulating, evanescent, volatile principle.

Sysimbrium Officinale, *Scop.*, (Hedge Mustard); diuretic and expectorant, useful in chronic coughs, hoarseness, and ulceration of mouth and fauces. The juice may be mixed with honey or sugar, or the seeds taken in substance.

Sinapis Nigra, *Linn.*, (Black Mustard). A well-known stimulating condiment. S. Arvensis, (Wild Mustard), possessing similar properties.

Raphanus,[¶] (The Radish).

Violaceæ, *De Cand.*—(The Violet Tribe).

Viola, *Linn.* Of thirty-three species of this genus in the United States, fifteen are found in this state;[**] some of them possessing valuable medicinal properties. Of these the most important are the ODORATA, PEDATA, SAGITTATA, TRICOLOR, and CUCULLATA. The roots of most of these species are emetic and purgative, in about the same doses as Ipecac., for which they have been proposed as a substitute. Their active properties are owing to a peculiar principle, *violine*, closely allied to *emetine*, in composition and action. A syrup, made of the flowers of the violet, is a very mild and pleasant laxative for infants and young children.

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[*] From *fumus*, smoke, in allusion to its smell.

[†] From *dis*, and *kentron*, a spur.

[‡] From *nasus tortus*, distorted nose; so named from its supposed effect in distorting the nasal muscles.

[||] From *turris*, a tower—from the pyramidal form of the plant.

[§] From the Greek, *cardia*, heart, and *damao*, to fortify, from its supposed power in strengthening the heart.

[¶] From *ra*, quickly. and *phainomai*, to appear; from its speedy germination.

[**] These are the following, viz.: *Pedata, Palmata, Cucullata, Selkirkii, Sagittata, Rotundifolia, Blauda, Mimulæfolia, Lanceolata, Striata, Muhlenberghii, Rostrata, Pubescens, Canadensis, Tricolor.*

The V. PEDATA, *Linn.*, is one of our most useful expectorants and demulcents. The *Tricolor*, *Linn.*, is a good depurative and alterative, and highly useful in nephritic, cutaneous, and other chronic affections. The herbaceous parts of all the species are mucilaginous, emollient, and slightly laxative, and the roots of all are expectorant, as they contain more or less of the active principle, *violine*. (*V. Pedata Off.*, *U. S. P.*) For a full account of their medicinal properties, see *N. Y. Jour. of Med.*, vol. vii., by Dr. Williams, (p. 321). Dr. W. has used the infusion of the V. OVATA, internally, and fomentations of the plant externally, successfully, in cases of chronic affections of the eyes, which had resisted the use of all other medicines. He states that this species yield a larger quantity of mucilage than any of the others, and hence is much used in dysentery, diarrhœa, strangury, and other affections of urinary organs.

HYPERICACEÆ.—(THE ST. JOHN'S-WORT TRIBE.)

This order yields us eight species of HYPERICUM, some of which possess active medicinal properties. The *Perforatum*, *Linn.*, or common St. John's-wort, was introduced from Europe. It has a peculiar balsamic odor, which is developed by rubbing the plant. Taste bitter, resinous and astringent. The flowers tinge spirits and oil of a fine purple color, and the dried plant, boiled with alum, dyes wool of a yellow color. The flowers impart a fine yellow to water, and some say redden alcohol and the fixed oils. Chief constituents, volatile oil, resin, tannin, and coloring matter. The flowers are astringent, and form a popular remedy for wounds and bruises. Dr. Wood considers the properties of the plant analagous to those of the turpentines. Used by the common people in a great variety of complaints. Its exact value not known.

The *H. Corrymbosum*, *Muhl.*, has black dots and lines, which are minute vesicles filled with an intense purple coloring matter, partially soluble in water, but wholly in alcohol. It is allied to the coloring principle of logwood, and formed from the materials of the pellucid vesicles, by the action of oxygen.

CARYOPHYLLACEÆ, *Juss.*

The PINK TRIBE yields the different species of Chick-weed and Sand-wort, some of which form excellent external emollient applications, but possess no active properties. The SILENE PENNSYLVANICA, *Mich.*, and VIRGINIANA, *Linn.*, (Wild Pink), have some reputation as anthelmintics. The SAPONARIA* OFFICINALIS, *Linn.*, (Soap-wort,) also belongs to this order. Contains a peculiar brown extractive matter, called *soponin*, which forms thirty-four per cent. of the dried root. The plant owes its medicinal properties to this principle, as well as its property of forming a lather like soap, when agitated with water, (see Wood and Bache). A valuable alterative, and may be used with much benefit in venereal and scrofulous affections, cutaneous diseases, and visceral obstructions. Some physicians deem it superior to sarsaparilla, in form of decoction or extract. The decoction should be given in quantity of from two to four pints daily, or the inspissated juice in doses of ℥ ss. in 24 hours. The *Saponine* is doubtless allied to the active constituent of sarsaparilla, *sarsaparillin*.

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* From the Latin, *sapo*, soap, its mucilage having been used for that purpose.

STELLARIA[*] MEDIA, *Smith*, (Common Chick-weed). A useful demulcent for poultices.

MALVACEÆ, *Juss.*

The MALLOWS TRIBE furnish several good demulcents, as they all abound, more or less, in mucilage. Of these the most important are the MALVA SYLVESTRIS, (or common Mallows), and the ALTHEREA[†] OFFICINALIS, *Linn.*, (Marsh Mallow), both of which are usefully employed in catarrhal, dysenteric, and nephritic complaints, and wherever mucilages are indicated; also form good cataplasms in external inflammation. A conserve of marsh mallows is one of the best demulcents, in irritation and inflammation of the respiratory organs.

Three species of HIBISCUS, belong to this order, one of which, *H. Virginicus*, (Sweating weed), has some valuable properties.

LINACEÆ, *De Cand.*

The FLAX TRIBE embrace both the wild, LINUM VIRGINIANUM, *Linn.*, and the cultivated flax, L. USITATISSIMUM, *Linn.* Useful as demulcents and in the arts.

GERANIACEÆ, *De Cand.*—(THE GERANIUM TRIBE.)

GERANIUM[‡] MACULATUM, *Linn.*, (Spotted Crane's bill). A powerful astringent, equal to Kino and Rhatany; used in secondary stages of bowel complaints, and in passive hemorrhages. A decoction of it in milk, a popular remedy in cholera infantum; useful as a wash and gargle in aphthous affections of the mouth, and ulcerations of fauces and tonsils; may be employed with advantage wherever pure astringents are indicated; used in powder, tincture, extract, and decoction. Contains gallic acid, tannin, mucilage, amadin, red coloring matter, resin, and a peculiar crystallizable principle. Might be substituted for foreign astringents.

Besides this species, we have the G. CAROLINIANUM, *Linn.*, PUSILLUM, *Linn.*, and ROBERTIANUM, *Linn.*, all of which are more or less astringent and diuretic. Griffith says they have been found useful in diseases of the kidneys and bladder.[||]

OXALIACEÆ, *De Cand.*

The WOOD-SORREL TRIBE furnishes us with three species of OXA-

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[*] From *stella*, a star, in allusion to the shape of its flower.

[†] From the Greek, *altho*, to *cure*.

[‡] From *geranos*, a crane, the pointed fruit resembling the bill of that bird.

[||] Medical Botany, p. 211.

LIS;* the O. ACETOSELLA, *Linn.*, (common Wood Sorrel), O. VIOLACA, *Linn.*, (Violet Wood Sorrel), O. STRIATA, *Linn.*, (Yellow Wood Sorrel); all of which have a pleasant acid flavor, and may be used as refrigerants. The expressed juice of the common wood sorrel yields, when purified and evaporated, crystals of binoxalate of potash, formerly sold under the name of *Salt of Sorrel*, for the purpose of removing ink-stains from linen.

This plant is a good antiscorbutic, and the juice forms a cooling drink in febrile complaints; when boiled with milk, it forms a very agreeable and pleasant whey. The plant is a popular remedy as an external application in cases of cancer; but often does harm by causing irritation and ulceration.

BALSAMINACEÆ, *A. Richard.*—(THE BALSAM TRIBE.)

IMPATIENS† PALLIDA, (Touch-me-not, Snap-weed). IM. FULVA, (Balsam weed, Jewel weed). Emetic, cathartic, diaphoretic, and diuretic; have an acrid burning taste. An ointment made by boiling the recent plants in lard, is useful in piles. The flowers may be used for dying yellow. Well known plants, which deserve further trials.

ANACARDIACEÆ, *R. Brown.*—(THE CASHEW TRIBE.)

Yields the different species of RHUS, viz.: RHUS‡ TYPHINA, *Linn.*, GLABRA, COPALLINA, VENENATA, TOXICODENDRON, and AROMATICA; all of which are found in New-York, and the order contains no other genus in the state. The VENENATA (poison sumach) is remarkable for its poisonous properties, although many persons are not susceptible to it. The symptoms caused by it are itching, redness, and tumefaction, succeeded by heat, pain, vesication, and fever. The best applications are a solution of borax or acet. lead. This species not used in medicine. R. GLABRA, *Linn.*, (Smooth Sumach). Officinal part, the berries, though the bark and leaves are astringent, and used in tanning leather and in dying. Excrescences are produced under the leaves, containing large quantities of tannin and gallic acid; might be substituted for *oak-galls.* The berries contain *malic* acid, to which they owe their sour taste; are astringent and refrigerant; used as a cooling drink in fevers, and a gargle in ulceration and inflammation of the throat. The inner bark of the root is used for same purpose; useful as a wash in mercurial salivation.

RHUS TOXICODENDRON, *Linn.*, (Poison Oak, Poison Ivy). The *radicans* is a variety of this species; its medical properties resemble those of the *nux vomica;* acts upòn the motor tract of the spinal cord; hence has been used in paralysis; also in rheumatism and cutaneous diseases, as an alterative. Dose of powder, gr. ss., gradually increased till some effect is produced. The active principle is so volatile that it cannot be given in decoction or extract. The juice is yellowish and milky; becomes permanently black on exposure to air, and when applied to linen or cotten forms an indelible dye, not subject to fade, nor eradicable by chemical agents. All vegetables which possess poisonous properties contain a similar principle of a peculiar character. All the plants belonging to the above order have a resinous, gummy, or milky caustic juice, though their fruit is often edible and pleasant. The West India *Mango* belongs to it.

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* From the Greek, *oxys*, sharp, or sour.

† Named in allusion to the sudden bursting of the seed vessels.

‡ From the Greek, *rhoas*, red, from the color of the fruit.

XANTHOXYLACEÆ, *Juss.*—(THE PRICKLY ASH TRIBE).

ZANTHOXYLUM[*] **AMERICANUM**, *Mill.*, (common Prickly Ash). This well-known shrub possesses medicinal properties almost identical with those of the *mezereon* and *guaic.*, and might often be substituted for them in the same complaints, with advantage. Stimulant, diaphoretic, deobstruent; used chiefly in chronic rheumatism and cutaneous diseases. Dose of powder, gr. x. to ʒj.; *decoction*, boil ℥j. of bark in O.iij. water to one quart, and give from ℥iv. to ℥xij. in a day. Contains a peculiar crystallizable principle, *zanthoxylin*, to which its virtues are owing. Besides this, it contains fixed oil, resin, gum, and coloring matter. The whole plant is endowed with active properties, though the bark only is officinal. This is acrid, pungent and aromatic.

PTELEA[†] **TRIFOLIATA**, *Linn.*, (Swamp Dog-wood, Stinking Ash). A strong infusion of the leaves and young shoots of this plant, are said by Schœpf, to be anthelmintic; the fruit is aromatic and bitter, and forms a good substitute for hops.

HIPPOCASTINACEÆ, *De Cand.*

The HORSE CHESTNUT TRIBE furnishes us but one genus, the **ÆSCALUS HIPPOCASTINUM**, (Horse Chesnut), a native of Asia, but cultivated as a shade tree, both in this country and Europe. Fruit and bark have been used in medicine. The former abounds in starch, but has a rough, disagreeable, bitter taste; of which it may be deprived by maceration in an alkaline solution. The starch is readily separated, and equal at least to that obtained from the potato. The powdered kernel of the fruit is a useful sternutory, in diseases of the head and eyes. The bark of the branches, from three to five years old, collected in the spring, has been successfully employed as a substitute for Cinchona. It contains bitter extractive and tannin, which are taken up by boiling water, and to which it owes its astringent and tonic properties. Given in intermittents, etc., in substance, decoction and infusion, in the same manner and doses as the Peruvian bark.

CELASTRACEÆ, *R. Brown.*

The SPINDLE TREE TRIBE furnish several valuable medicinal plants in New-York, among which are, the

CELASTRUS SCANDENS, (Bitter Sweet). The bark, emetic, discutient, anti-syphilitic, slightly narcotic, has valuable alterative properties, and is a popular remedy in hepatic affections. Deserves further investigation. Torrey states that the plant is "narcotic and stimulating, and employed as a domestic medicine in the western states."

EUONYMUS[‡] **ATROPURPUREUS**, *Jacq.*, (Burning Bush, sometimes called *Wahoo*), though the same name is given to the *ear-leaved Magnolia*, and the *Ulmus alata*.*

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[*] From the Greek, *xanthos*, yellow, and *xylon*, wood.

[†] The Greek name of the Elm, from *ptao*, to fly, in allusion to the winged seed vessels.

[‡] From *Euonyme*, mother to the Furies; in allusion to the injurious effects produced by the fruit of this plant.

EUONYMUS AMERICANUS, *Linn.*, (Strawberry Tree.)

The seeds of both species of this shrub, are emetic and purgative; the bark a very efficient alterative. A quack preparation, in which the first species forms the principal ingredient, under the name of *Wahoo*, has considerable repute, in this state, in the cure of many chronic diseases, where a depurative alterative is indicated. We believe the tree has valuable deobstruent properties, which entitle it to the attention of the profession generally.

RHAMNACEÆ, *Juss.*—(THE BUCK-THORN TRIBE.)

RHAMNUS† CATHARTICUS, (Common Buck-thorn). This is found in the highlands of this state, and naturalized in many places, (Eaton's Manual). A shrub seven or eight feet high; berries, officinal; their odor is unpleasant, taste bitter, acrid, and nauseous. Contain a peculiar coloring matter, acetic acid, mucilage, sugar, a peculiar principle, *rhamnin*, and a nitrogenous substance. The berries and expressed juice actively purgative; apt to cause nausea and griping, with much thirst and dryness of mouth; chiefly useful as hydragogue cathartic in dropsy. The *syrup* is the best form of giving it. This is often made, in this city, of the berries of the *Cratægus*. We have another species, *R. Alnifolius*, growing in swamps in the northern parts of the state, whose berries have similar properties.

CEANOTHUS AMERICANUS, *Linn.*, (New Jersey Tea). The leaves of this shrub were used for tea, during the revolutionary war. Root slightly bitter and astringent; imparts a red color to water; a useful alterative, in syphilis, hepatic, and cutaneous diseases; has been employed with success in dysentery, in the form of strong infusion of the leaves; forms a valuable local application in aphthous affections of the mouth and fauces. Ferrien states that a strong decoction of it cures gonorrhœa in two or three days, (Griffith). The Indians use it as a febrifuge, as well as an astringent. We regard it as a valuable article.

VITACEÆ, *Juss.*—(THE VINE TRIBE).

The VINE TRIBE of our state yields four indigenous species. These are VITIS LABRUSCA, *Linn.*, (Fox Grape) · V. AESTIVALIS, *Michx.*, (Summer Grape); V. CORDIFOLIA, *Michx.*, (Frost Grape); V. RIPARIA, *Michx.*, (Winter Grape). It is said by Mr. Adlum, that there are 200 varieties of the wild grape in the United States. Rafinesque has described forty-one indigenous species. The *Fox* grape is about three-fourths of an inch in diameter, globose, usually dark purple, when ripe, sometimes amber-colored, or greenish-white, of a strong musky odor, and somewhat rancid taste, filled with a tough pulp. The *Isa-*

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* The Trees of America, native and foreign, by D. J. Browne. Harpers: New-York, 1846.

† From the Greek, *rhamnus*, a branch.

bella, *Schuylkill*, or *Alexanders*, the *Catawba*, and *Bland's* grape, are varieties of this species. The berries of the *Summer* grape are about one-fourth of an inch in diameter, globose, deep blue, or almost black, of a pleasant flavor. The berries of the *Frost* grape are about one-fourth of an inch in diameter, nearly black when mature, very acerb, but pleasant after having been frozen. The *Winter* grapes are about one-fourth of an inch in diameter, and dark purple or amber-color when ripe. When ripe these, like other grapes, possess valuable medicinal properties, being wholesome, antiseptic, cooling, diuretic and laxative, and prove beneficial in many diseases. Thus we have what is called the *Grape cure* in Germany, which consists in confining patients with chronic diseases entirely to a diet of grapes. Palatable wines may also be made of our indigenous grapes, possessing the same medicinal qualities as those of foreign wines

POLYGALACEÆ, *Juss.*—(THE MILK-WORT TRIBE).

The plants of this, like many of the other natural orders, differ considerably in their medicinal properties. Some are bitter and tonic; some emetic, purgative and diuretic, some are merely emetic, others are diuretic and sudorific; while others still are poisonous. POLYGALA* SENEGA, *Linn.*, the *Seneca Snake Root* is a not uncommon plant in this state, in dry rocky woods, and flowering from May to July. Expectorant, emetic, sudorific, diuretic, emmenagogue, cathartic, diaphoretic, etc., according to dose and manner of administration; most valuable as an expectorant in croup, and other pulmonary affections. In amenorrhea, it proves most useful in recent cases. The Senega contains two peculiar acids, the *Polygalic* and the *Virgineic*, on which its virtues depend. (*Quevenne, in Jour. de Pharm* xxii)

POLYGALA SANGUINEA, *Linn.*, (Purple Milk-wort). According to Dr. B. S. Barton, this species possesses the same medicinal properties as the former, and may be used in the same cases. We have never tested it.

POLYGALA PAUCIFOLIA, according to Rafinesque, has active properties; the root having a sweet, pungent, and aromatic taste, while, like the Senega, it is stimulant, sudorific, expectorant, etc., but milder in its action than the latter plant; used in warm infusion and decoction. Dr. Griffith says that the root appears to have the properties of a tonic and bitter, similar to the *P. amara* and *P. rubella*, and that his observations do not agree with those of Rafinesque. (*Med. Botany*, p. 227.)

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* From the Greek, *poly*, much, and *gala*, milk; from its supposed power of increasing the secretion of milk.

(To be continued.)

Art. II.—*Quarterly Report of sick and wounded of the U. S. Infantry at Vera Cruz, for the quarter ending June 30th,* 1847.—By C. H. Lamb, M. D., U. S. A.

Vera Cruz, Mex., July 3d, 1846.

Sir,—Herewith I have the honor to enclose a quarterly report of sick and wounded of the 1st U. S. Infantry, stationed at this post, for this quarter, ending 30th June, 1847.

By this report you will observe, that the yellow fever is one of the prevailing diseases of the city at this time, and although it cannot be said as yet to have assumed an *epidemic* character, a considerable number of cases have occurred. The mortality, I am happy to be able to say, up to this time, has been comparatively small (for hospital patients), the number of deaths from this disease being about 24 per cent. and from all diseases about 5, a result, which will, I believe, compare very favorably with mortuary statistics of the southern cities of the United States during the prevalence of this fever. The mortality at New Orleans, I am informed, has been, for a series of years, a fraction less than 50 per cent.

With some exceptions the disease has been of a mild and tractable character, yielding, if taken in its earlier stage, to the influence of full doses of Quinine (15 to 20 grs.) with mercurials, aided by general and local depletion, warm mustard baths, mild purgatives or enemata, iced or acidulated gum-water in small quantities as a drink. The greatest reliance may be placed upon large doses of Quinine at the onset and continued in smaller doses (5 to 8 grs.) every 4 or 6 hours during the first thirty-six or forty-eight hours, in arresting the disease; mercurial cathartics coming in as a part of the early treatment, with a view principally of dislodging the contents of the bowels. When this course fails, as it sometimes does, in producing a favorable termination or crisis, the subsequent treatment, a much less active one, consists in the administration of various remedial agents to meet local symptoms as indicated by the prominent features of each individual case; such as the application of dry cups, iced water and vinegar to the head, fomentations or sponging with warm brandy and water, sinapisms, blisters, mustard pediluvia, together with the internal administration of camphorated ammonia mixture, or where there is much irritability of stomach, bicarb. soda and morphia; at the same time keeping the primæ viæ free by mild enemata.

My own experience and I believe that of most of the medical men here, compels me to say that little benefit has been derived from this subsequent treatment; the cases in which we have had an opportunity of testing its value, having, with but few exceptions, terminated fatally.

A few cases have, from the commencement assumed an aggravated form; the hemorrhagic tendency being early developed in sanguineous discharges from the mouth and anus, and the ejections from the stomach of that peculiar secretion, "the black vomit," which with some of the resident physicians appears to have given the distinctive appellative to this "vomito," as differing in some respects from the yellow fever of New Orleans, but of which the evidence presented by the disease gives no corroboration. Other rare cases of that peculiar form designated as "walking" have been observed, in which the patient, though fatally affected, is, nevertheless, able to walk about to within a comparatively very short time of his dissolution. This propensity too, he is sure to indulge, contrary to instructions, if not narrowly watched and prevented. These cases afford additional proof of the assertion of Prof. Harrison, of New-Orleans, that they are almost invariably fatal, in defiance of all remedies and contrary to what would be expected (judging merely from appearances) by those who have never witnessed this curious form of the disease.

A singular symptom, which I have not seen noticed by any writer on the subject, is the discoloration of the tongue, which has been observed by myself and others. This occurs during convalescence, even as late as the fifteenth and twentieth day; commencing in the centre and extending in some cases over the whole upper surface of the tongue, so as to give it the appearance of having been smeared with ink. This symptom occurring without any assignable cause, has proved to be of little importance; disappearing under the administration of aromatic sulph. acid and quinine, in doses of one or two grains three times a day.

The general type of the fever has been that of an open *remittent* character, while some cases, from the commencement of, or soon after the attack, have assumed a typhoid character; a highly-unfavorable state of things, the mortality being greater and the convalescence more tedious and protracted.

I have not spoken of the dietetic management of this disease, because little, indeed, can be said on this subject. An entire restriction from all articles of nourishment must be enjoined and strictly required until the period of convalescence be permanently established; when beef-tea or chicken-water may be allowed in small quantity, with Port wine-sangarees, brandy-toddy, porter or ale, as the fancy of the individual may suggest, and occasional doses of the mineral acids.

When cases have terminated fatally, death has taken place generally on the fifth day, while the period occupied in the convalescence has been from 8 to 20 days.

With great respect your obedient servant,

C. H. Lamb, Asst. Surg. U. S. A.

Surgeon General, U. S. Army, Washington, D. C.

ABSTRACT OF QUARTERLY REPORT OF SICK AND WOUNDED AT VERA CRUZ, MEXICO,

For the Quarter ending June 31, 1847.

Remaining last Report.				*Fevers.*				*Digestive System.*				*Respiratory System.*		*Nervous System*		*Urinary and Genital Organs*			*Fibrous and Muscular Structures*	*Abscess and Ulcers*		*Wounds and Injuries.*				*All other Diseases.*										*Remaining.*		
Sick.	Convalescent.	Total.	*Month.*	Febris Intermittens Quot.	Febris Intermittens Tertian.	Febris Remittens.	Febris Typhus Ict.	Colica.	Diarrhœa.	Dysenteria Acuta.	Obsipatio.	Bronchitis Acuta.	Catarrhus.	Delirium Tremens.	Meningitis.	Gonorrhœa.	Strictura Urethræ.	Syphilis Primitiva.	Rheumatismus, Chronic.	Phlegmon. et Abscess.	Ulcus.	Contusio.	Fracturæ.	Luxatio.	Vulnus Sclopeticum.	Debilitas.	Hernia.	Scorbutus.	Local Inflammation.	Morbi Varii.*	Total.	Sent to General Hospital.	Returned to Duty.	Discharged since.	Died.	Sick.	Convalescent.	Total.
			April	36	5	23			73	5			2	1		1			5	2	1	4	1	2	4	1		2	4	9	183		136	4	4			
			May ...	08	7	5	2		60	7	3		1						7		2	1			1		3	4		6	217		180	2	6			
			June	236	6	5	136	1	59	82	7	5	2		1	5		1	4		4	5			1	9	3	7		11	590	2	476	3	42			
10		10	Gr'nd total	380	18	33	138	1	192	94	10	5	5	1	1	6	1	2	16	2	7	10	1	2	6	10	6	13	4	26	990	2	792	9	52	54	92	145

* Under the term *Morbi Varii*, are included all diseases which possess no specific characters.

R E M A R K S.

2 deaths from Remittent Fever.
35 " " Yellow "
13 " " Diarrhœa and Dysentery.
1 " " Meningitis.
1 " " Dilirium Tremens.

MEAN STRENGTH.			
Month.	*Officers*	*Enlisted Men.*	*Total.*
April	12	354	366
May	10	373	383
June	10	422	432
Aggregate...	32	1149	1181
Average...........................			393⅔

Signed, C. H. LAMB,
Asst. Surgeon, U. S. A.

ART. III.—*Annual Report to the Board of Directors.* By N. MORRELL, M. D., Physician to the N. Y. Institution for the Deaf and Dumb. (Submitted Jan. 12th, 1847.)

THE undersigned, Physician to the New-York Institution for the Instruction of the Deaf and Dumb, has the honor to submit to the Board of Directors the following

REPORT:

For the past year the health of the Institution has been generally good, though it has in a measure suffered from the causes of disease which have prevailed in the neighborhood. About the commencement of the vacation, a number of the pupils were attacked with dysentery. Later, in the beginning of autumn, several had intermittent fever and two had a severe form of congestive fever. One of these died.—After this, a pupil who had not been ill during the prevalence of dysentery, was attacked with this disease, which proving hemorrhagic, terminated fatally. At present, all the pupils enjoy excellent health.

In the Eighteenth Annual Report of this Institution is the best digest of statistical matter yet published concerning the deaf and dumb. From this digest there results the conclusion, that more than one-half of the deaf and dumb persons, who have been admitted for instruction, were born deaf; and that more than one-half of the remainder became deaf at a very early age—thus leaving but a very few cases likely to be benefited by medical treatment. This conclusion was digested with great care by Mr. Peet, from materials furnished by nearly all the institutions of Europe and America, and can therefore be relied on as a guide as well for the future as the present. Besides, the writer's casual observation at the Institution for ten years and his experience in it for a year and-a-half, added to the experience of Dr. Itard, Physician to the Institution of Paris, confirms the accuracy of the foregoing conclusion. Still some cases remain susceptible of relief or cure, and for this reason the writer submits his experience. During his connection for twelve years with a hospital of over eighty children, on the Long Island Farms, he had many opportunities of witnessing the progress of disease in the organ of hearing, and of examining, after death, many cases where deafness obtained during life, a detail of which may not prove wholly uninteresting.

In twenty-five cases of death from scarlatina wherein deafness had been a prominent symptom, the lining membrane of the eustachian tubes, on being examined, presented a character similar to the throat and nostrils, being more or less changed, probably very red during life, but after death pale and thickened or softened, and uniformly covered with a thin glary secretion, in which floated a great number of ash-colored shreds, probably changed coagulable lymph, certainly not the natural mucous secretion of these membranes. This state extended uniformly through the eustachian tubes quite into the tympanum, in which some of this changed secretion was always discoverable. The membranes lining the external meatus partook of the state of the skin, the natural secretion of wax seemed to have been nearly or quite suspended, and the membrane covered with many minute points, from which issued, appeared to have issued, or to have been about to issue a sero-purulent secretion instead of wax.

In fifteen cases of death from measles where symptoms of deafness occurred during their progress, the membranes of the eustachian tube and tympanum exhibited on examination traces of red vessels ramifying in every direction together with a remarkable dryness, as if the mucous secretion had been suspended some time before death. The membrane of the external meatus showed that the secretion of wax had been interrupted also. So the exanthemata affect every portion of the tegumentary system. The lining membranes of the auditory passages, of the vagina, uterus and bladder, suffer alike with the skin.

Proceeding from that derangement which occurs throughout the tegumentary system, deafness becomes a common symptom, connected with all the exanthemata, and should it continue after recovery from scarlatina or measles, or smallpox, or eruptive typhus, the membranes lining the auditory passages have not resumed their natural secretion pari passu with the skin and intestinal mucous membranes; the eustachian tube is partially closed, ulceration is likely to take place in the external meatus, abscess to form within the tympanum, and deafness become permanent. Besides, in many such cases, there has lain dormant a scrofulous vice, which, excited by either of the foregoing diseases, forms a new element to demand serious consideration, likely to render ulceration unmanageable should it occur, or to form a serious obstacle to a returning state of health in the membranes of the auditory passages.

Children of the age of one year or under, become deaf from the effect of simple forms of fever, because the head at this age is large in proportion to the whole body, and because the auditory apparatus is not yet perfected. The temporal bone has not yet become petrous, and being still penetrated with vessels of a considerable size, exposes the auditory nerve to disorganization, from the great quantity of blood propelled toward it when the action of the heart is violent. Besides, fever at this age often terminates in abscess of one or both ears, and if the abscess form within the tympanum, deafness becomes permanent.

To cure deafness, two indications present—first, to prevent ulceration; second, to restore the membranes to a healthy secretion.

For the first, alteratives succeed; and for the second, alteratives are preferable.

Syrup of sarsaparilla, made after the old formula, to which may advantageously be added the root of rumex crispus and the tinctures of the bark of prinos verticillatus and chymaphilla umbellata, is a remedy of the first importance. Next, the muriate of lime, an old remedy, now much neglected, and lastly, iodine and its preparations, make up the chapter of internal remedies. Blisters, kept perpetually discharging, placed behind the ears or on the arms alternately, form the remedies to be applied externally. The fauces must be well rubbed with a smooth piece of alum twice a week, to be occasionally alternated with a solution of nitrate of silver, or, when the tonsils are prominent, with the solid caustic, not too heavily applied. Lastly, the external meatus must be cleansed once a day with warm brandy, or warm brandy and water, or a solution of iodine, or a decoction of the bark of prinos verticillatus. Perseverance in the course for months, sometimes for more than a year, finally ends with complete success, provided the treatment have commenced before disorganization of the external or internal ear, and this admits of illustration by cases in detail.

A child, aged ten years, scrofulous diathesis, with both ears in a state of ulceration, said to have been induced by scarlet fever, was brought to the Farms in June 1833. The lining membranes of both the external auditory passages were destroyed and the ears discharged a bloody sanies, the bones were in progress of ulceration, and the child totally deaf. In one ear the ulceration could not be checked, the cochlea came away, ulceration progressed, one side of the face became paralyzed, and the child died six months after admission.

On examination post mortem, ulceration was found to have extended through the temporal bone to the dura mater and thence to the brain. In progress of ulceration, the canal of the seventh nerve, where it crosses the tympanum, had become penetrated and the nerve destroyed at that place. This accounted for the paralysis. Two other cases terminated in the same way, from unmanageable scrofulous ulceration of the ear, extending through the bone to the brain.

A girl, aged five years, red hair, fair complexion, apparently robust, had scarlatina in May, 1833. On the third day she became deaf, and remained so after recovery. The ears soon began to discharge a sanious ichor, extremely offensive, and the child complained of pain. On examination, the whole external auditory passages were in a state of ulceration—ordered the ears to be cleansed with a solution of iodine, a course of sarsaparilla internally, with nitric acid, occasionally a little sulphate of quinine, and a blister to be applied behind the ears every fourteen days. After a month one ear began to improve, the other grew worse, the tympanum became ulcerated and finally destroyed. This ear was washed with weak brandy and water, and occasionally with a weak solution of chloride of lime. The child occasionally suffered great pain. After four months the small bones came away, and lastly, after six months, the cochlea, more perfect than it could have been dissected. The child now suffered less pain, the discharge diminished daily, and finally, after two years of treatment, constantly pursued, of blistering behind the ears, sarsaparilla and nitric acid, with occasionally sulphate of quinine, and occasional attention to the bowels, the child was pronounced cured, hearing perfectly with one ear and some with the other, though the cochlea had come away. The cure remained permanent and the child was bound out three years after.

A girl, aged eight years, dark hair, dark complexion, thick upper lip, had scarlatina in June, 1833. She exhibited no symptoms of deafness for the first five days. When the eruption began to desquamate she grew deaf, and the ears soon after began to discharge. They were cleansed with a weak solution of chloride of lime, and occasionally with brandy and water. Blisters were applied over the mastoid processes—sarsaparilla and nitric acid, with occasionally a little quinine, to be alternated with Lugol's solution, and attention to the digestive organs. In four months the ears were apparently cured. Two weeks after, the eyes began to suffer a genuine scrofulous inflammation. They remained bad two months, then became apparently well, but then the ears had commenced their old discharge and the child was deaf again. One ear now grew rapidly worse, the tympanum ulcerated, the small bones came away, and finally the cochlea. After this, the discharge ceased from both ears. Another attack of ophthalmia now came on, but the child finally recovered from both and was pronounced well, after two years and six months of constant treatment, taking unceasingly sarsaparilla and Lugol's solution alternated with nitric acid, and having blisters applied, every two weeks, to the nape of the neck or behind the ears. The writer remarks, that few parents would persevere so long, but rather, letting the disease have its course, be content with a child either blind or deaf, or lament over a child's deafness when too late to hope for a cure.

With regard to cases less tedious and difficult, the writer followed the one rule. As soon as he ascertained that deafness endured after an attack, he ordered blisters to be applied immediately, and repeated them once in two weeks with unfailing regularity, gave the syrup of sarsaparilla, with Lugol's solution, and nitric or muriatic acid, and occasionally sulphate of quinine, attended every morning to the state of the child's digestive organs, and finally had the gratification to know that he had succeded. For six years, during which the writer followed the above course, he observed, on several occasions, that children under treatment broke out with varied cutaneous eruptions, not allied either to itch or to exanthemata; and that when, after a period of treatment without much success, these eruptions appeared, the ears ceased discharging, the throat recovered its natural condition, and the hearing became perfectly restored. He could not always refer these eruptions to previously-described heads, he can only say that they were mostly of a pustular character. He then began to view some of these cases as either proceeding from an eruption, previously repelled by the attack of exanthemata, or from an eruption, excited into fermentation by the same attack. He looked around for a remedy to increase and develop the latent eruption, and in his search became acquainted with the bark of prinos verticillatus.

As, in regard to the exanthemata, if the eruption cannot be produced upon the skin, the patient must die, so, as to other cutaneous affections, many of which are inherited, if the eruption do not appear at the proper period, there will follow, not indeed, death, but a less serious derangement of the system—ophthalmia, or deafness, or convulsions, or diarrhœa in children; and dyspnœa, or sneezing, or cramps, or fever in adults; and when such a state is suspected, a decoction of the bark of prinos verticillatus can be relied on, or the sarsaparilla, with a strong tincture of the bark.

A little girl, aged four years, had been for a year occasionally subject to pain in the ear, followed by deafness. There had been no discharge from the ear, nor any apparent external change, nor any swelling of the tonsils, nor inflammation of the throat. The writer had treated the mother ten years before for strumous ophthalmia, occasionally accompanied with an evanescent eruption, and therefore suspected that the child might inherit some form of eruptive disease. He gave it the tincture of prinos verticillatus in the syrup of sarsaparilla. In three weeks an eruption of a pustular character appeared on the skin, and the hearing was soon restored. After three weeks the eruption disappeared. In the following spring the child again became deaf and the same treatment was pursued. He saw nothing more of the eruption, but a scrofulous abscess formed on the right cheek bone, which abscess was not healed till six months after. The sarsaparilla was continued, and, before the abscess healed, the hearing again became perfect, and remained so. May, 1846, there has been no relapse.

A boy, aged fourteen, engaged in an apothecary's shop at making Seidlitz powders, and other marketable articles—dark hair, with fair skin, after having experienced several attacks of effusion within the knee-joints, following severe attacks of tonsillitis, was seized with acute pain in the ear, followed by a dulness of hearing. These attacks succeeded each other repeatedly; the membrane of the external auditory passages became ulcerated. There was an offensive discharge from the ears, and an occasional sense of bursting or ringing, followed by an improvement in hearing for a short period after each sensation of bursting. In this condition he came under treatment, too deaf to distinguish ordinary conversation.

Diagnosis—probable thickening of the membranes of the eustachian tube, and certainly a considerable change in the mucus secreted, which partially closes the tube, pustular ulceration of the external meatus, extending over the tympanum, which is perfect. Cause—an undeveloped eruption.

He was told that his case was not hopeless, and that, if he would persevere, he might expect to be cured in about eighteen months. The treatment commenced in September, 1841. Syrup of sarsaparilla with tincture of prinos verticillatus—a blister behind each ear every fourteenth day—the throat to be touched twice a week with the nitrate of silver—to alternate with a piece of alum, well applied—the ears to be cleansed with warm brandy. He attended to his business constantly. Applied the blisters on Saturday nights, and on Monday morning pursued his labor. After several applications of the blisters, a copious crop of pustules appeared over and in the vicinity of the blistered surface. The blisters were not repeated till the pustules had healed. After eighteen months he had greatly improved; he had experienced several sensations of bursting, followed by permanent improvement. He persevered till August, 1844—nearly three years, when the cure had become complete. March, 1845—there has been no relapse of deafness, though he has experienced several severe colds during the past winter. He hears so well, that no person can detect the least deafness, nor can he detect it himself. The case has been shown to Mr. Peet, President of the Institution, as a proof of what perseverance can effect with common means.

A boy, aged five years, red hair, fair complexion, thick upper lip, had been subject to a pustular eruption of the scalp and face. The eruption appeared a few months after birth, and from that time had not wholly disappeared. There were several children in the family, none of whom were affected with eruptions except this one, who was the third child. The father had contracted syphilis in his youth, and from that time had been occasionally teased with an eruption, appearing on the face, and body. The mother was also subject to an eruption, appearing on the face. In their anxiety to have the child cured, they applied a secret remedy, which, to their great satisfaction, repelled the eruption. Three weeks after the cure they began to observe that the child appeared stupid, and soon after discovered that he was growing deaf. They now consulted the writer. They were told that the deafness was unquestionably connected with the eruption which had not been thoroughly evolved, and that, to restore the child to hearing, the eruption must re-appear or must be imitated by blisters or issues. The child was put on a course of decoction of prinos verticillatus with muriate of lime. After four weeks, the eruption began to re-appear and the hearing to improve pari passu ; the eruption very soon assumed its former character and the discharge became offensive. To moderate this, the ointment of hyd. sub. muriat. and arsenic was occasionally applied. The treatment was pursued for a year, when the eruption had gradually decreased and finally disappeared, while the child continued to hear perfectly.

In the case of persons born deaf, we find occasionally malformation of the throat and mechanical apparatus for hearing, but the greater number present no appreciable change in the mechanism of the organs, and the cause of deafness in these lies in the nervous system, and, like amaurosis, cannot often be treated with success. Yet deafness may proceed from derangement of the nervous system coming on after birth, and sometimes admits of cure.

A boy, about five years of age, extremely mobile, and apparently liable to St. Vitus's dance, was observed to become dull of hearing occasionally, after his third year. He had a slight fever in the winter of eighteen hundred and forty-five and six, and afterward became still more dull of hearing. His parents were both healthy. There was no traceable hereditariness and no appreciable change in the organs of hearing, nor yet any apparent probability of a latent eruption. But the child had been subject to frequent attacks of earache, and after each attack his mother thought his deafness increased. A small blister was ordered on the arm, to be applied every two weeks, first on the one arm and then on the other, and sarsaparilla with prinos verticillatus, and the ears to be occasionally cleansed with warm brandy. The fever returned ; the child's pulse became quite frequent (one hundred and twenty,) and the hearing quite restored. When the fever had abated, deafness returned; the child was now more excitable than before. He was put on a course of Fowler's solution with muriate of lime, and after a month the excitability had greatly diminished and the hearing almost perfectly restored. Whether he will continue to hear well, sufficient time has not elapsed for decision.

December 12th, this child remains cured.

In conclusion, the causes of deafness lie sometimes exclusively in the nervous apparatus, and to this class are referable most of the cases born deaf, together with some others, connected with St. Vitus's dance, epilepsy, drunkenness, etc. ; this class of cases is for the most part hopeless.

Sometimes, from an inflammation and consequent thickening and altered secretion of the membranes of the auditory passages, connected with scarlatina, measles, tonsillitis, etc., this class of cases admits of cure by care and perseverance.

Lastly, deafness proceeds in a great number of cases from eruptions, repelled or latent, and in this class the membranes of the auditory passages are not inflamed, but their usual healthy secretion becomes suspended and their surfaces become erected. This class of cases also admits of cure by causing the eruption to appear, or by arresting the tendency of an eruption, to be produced while it is imitated by blisters.

Art. IV.—*An Essay on the Philosophy of Medicine, and the spirit in which it should be studied and practised.* By N. S. Davis, M.D., New York, late of Binghamton.

Are there at present existing a sufficient number of well-established facts and clearly-ascertained general principles, on which to found a rational and true system of medical science and practice? or, are the supposed facts and received doctrines of the profession at the present day, like those of the past, only so many bubbles that are to vanish before the new views of those who are to come after us? We do not intend to ask whether medical science has already attained perfection; but, simply, whether the experience and observation of the last 2000 years has led to the establishment of such a series of general principles as will stand the test of future time, and constitute a system of sound *medical philosophy?* A hasty and inconsiderate glance at the past history of medicine has led many to the conclusion, that of all sciences it is the most changeable and uncertain. For, from the days of Esculapius to the present time, theory has succeeded theory, and system followed system, almost as rapidly as one military despot succeeds another in the government of Mexico; while the reputation of particular medicines in certain diseases has been no less variable and uncertain. To-day, a medicine may be heralded almost as a specific in a given disease, and to-morrow be condemned and consigned to oblivion; and almost every day we may hear of the exclusive and universally-curative powers of Hydropathy and Lobeliapathy on the one hand and infinitesimal Homœopathy and Mesmerism on the other. But we should be careful how we judge of the condition of any science or profession by the number or reasonableness of the theories promulgated by its advocates. For such is the constitution of the human mind, that it is ever struggling to frame theories or hypotheses for the explanation of such facts as come within the scope of its investigation. And how often do we see a man's whole life spent in practices directly contradictory to his own theories; thus, we find one man denying the very existence of *matter*, and yet he daily treads on the earth with as much freedom and confidence as the man who believes there is nothing but matter in the universe. Another theorizes himself into the belief that all animals were originally derived from one primitive type, as the Monad or Molusc; and, consequently, that man is but an improvement on the lower orders. And yet we never find one of these men actually endeavoring to raise men from monkeys, or even a Troglodyte from a Mólusc. On the contrary, we observe them in practice as invariably expecting "*like* to *beget like*," as other men. The same course of remark might be extended by reference to many medical theorists of the present and past generations. But enough has been said to make good our assertion, that the practical condition of a profession cannot be inferred with certainty from the theories inculcated by its advocates. Indeed, what judicious or intelligent physician of the present day, regulates his daily practice by any of the great medical hypotheses that have held sway in the medical world, whether it be Humoralism or Solidism, Brunonism or Broussaisism, Vitalism or Chemicalism, or even that amalgamation of Swedenborgianism, and the ancient doctrine of *animal spirits*, the "*influences of evil*," and the *spiritual* nature of both medicines and diseases, advocated by the disciples of Hahnemann? Certainly, no one. And yet, it is chiefly the number, the contradictory nature, and the absurdity of these theories or pretended systems of medical philosophy, that has caused medical science to be regarded by very many as so vague and uncertain as to be little better than a blind system of guessing. But it seems to me, that all this arises from a fundamental error concerning the real nature of medical philosophy. The human mind, led on from step to step, has ever been prone to overleap facts and realities, and struggle to fathom the unfathomable; to grasp the imponderable, infinite *why* and *wherefore* of things. And such is our mental nature, that when once an imaginary hypothesis has been framed, it in fact becomes the medium of our mental vision, throwing its own shade and color over all things else; hence we might almost hazard the assertion, that a man's facts are more frequently founded on his theorics than the contrary. But let us return to the important inquiry with which we commenced, and, in a brief compass, determine, if possible, what constitutes a sound and practical system of medical philosophy. The great error committed, in attempting to solve this question, generally consists in a vain effort to explain all the phenomena of life, and, of course, also all morbid actions, by means of some one general law or universally-acting agent.—Thus with the ancients, the *spiritus animi* and the *morbid humors* afforded a ready explanation of all vital and morbid phenomena, while, at a later period, the *spiritus archæus* of Van Helmont; the *rational soul* of Stahl; and the *siderial spirit* of Paracelsus, swayed the minds of grave medical philosophers. And even at the present day, while the long-protracted war between Humoralism and Solidism is being waged with unabated ardor, we find some men resolving all vital phenomena into the effects of magnetic and electrical attractions and repulsions; others, with test-glass and microscope, make the human system a simple chemical laboratory, and make life itself but the combined result of light, heat, and moisture, acting on elementary matter; while others still, not content with making the whole animate world obedient to one universal agent, (caloric,) invest their favorite hobby with the *attributes* of Deity himself.* Such attempts at a sweeping generalization, and the apparent simplicity of a reduction of all vital phenomena to the agency of some one all-pervading principle or agent, may be very fascinating to the mind; but do they advance us a single step in actual knowledge? That all organized or animate matter is endowed with a power, principle, or agent, essential to its organization and vitality; and which, under all circumstances, plainly distinguishes it from unorganized or dead matter, is universally conceded. That the action of all physical agents, on living matter, is modified, and in some measure controlled, by this *vital power*, is equally acknowledged. Remembering these two facts, it matters but little what name we apply to this vitalizing principle; whether it be the calidum innatum, the principia vitæ, the chemical forces, animal electricty, or caloric. And all the volumes of speculation and controversy which have been written on the subject, have served more to bewilder than enlighten the reader. The simple truth is, that the Creator has endowed the living, organized part of our world with an inherent, essential power or property, which, to a certain extent at least, exempts it from the influence of those agents that control the inanimate or unorganized part. Of the essential nature of this power we know nothing. To call it a chemical force, an electric power, or caloric, or any of the imponderable agents, is but to mistake effects for causes, and render confusion worse confounded. Neither do such speculations constitute any part of medical philosophy. But the true philosopher leaves this question where he leaves the *essential nature* of everything else, and contents himself with studying man, not in his incomprehensible essentialities, but in the phenomena, healthy and morbid, which he presents. Bringing this spirit to his task, two fundamental facts or realities meet him at the threshold of his investigations. The first is, that man is made up of a great variety of tissues and organs, each performing its own appropriate and specific office or function, and each maintained in existence and controlled by certain invariable laws. The second is, that all these tissues and organs are liable to be influenced by morbid agents, producing changes in their functions, and alterations in their structure (conditions which we term disease); and that there are other agents and substances also capable of acting on these same tissues and organs in such a manner as to increase or diminish their diseased conditions: these are called medicinal agents or medicines. From these two starting points radiate a great number of questions, the answers to which constitute the whole sum of sound medical science and philosophy. 1st. How many distinct tissues and organs are there in the human system, and what the peculiar structure of each? 2d. What are the functions of each, and the agents and laws by which they are maintained and controlled in health? 3d. Of what morbid changes are they susceptible, and what the agents capable of producing those changes? 4th. What agents or substances are capable of acting medicinally, and on what particular organ or tissue is each capable of exciting its specific influence? 5th. What is the medium of communication between different organs, and how far can one be made to exert a healthy or morbid influence over another, or even all the rest?

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* See Metcalfe on Caloric.

Proceeding thus analytically in our inquiries, we first gain a clear and definite idea of the nature, extent, and ultimate design of all medical knowledge. The next object should be, to ascertain how far the questions propounded can be fully and satisfactorily answered in the present state of our knowledge. The first question, being susceptible of manual demonstration, is very minutely answered in the many works on general and special anatomy. The second, though in some respects less completely demonstrable to our senses, is, nevertheless, with few exceptions, quite as satisfactorily answered by the physiologist.—Thus, we are quite as certain that every organ performs a specific function or office in the system—as the brain for mental manifestations, the alimentary canal for digestion, the vascular system for circulation, the liver for the secretion of bile, the kidneys for urine, the muscular fibre for contraction, etc., etc.—as we are of any other facts whatever. Equally certain it is, that each of these separate organs require for the healthy performance of their functions, the presence and influence of certain agents, as atmospheric air for the lungs, food for the alimentary canal, impressions through the medium of the external senses for the brain, arterial blood for the heart, nervous influence for the muscles, etc. And not only has every separate organ and tissue its own distinct action or function to perform, and its natural agent or stimulant to excite it to the performance of that function, but each is liable to be acted upon and modified by some substances while it possesses an immunity from the influence of others. But while each organ thus possesses its own perfectly distinct function, and its natural attractions and repulsions, if we may be allowed the expression, they are all united in such a way as to act in perfect harmony, and mutually exert a sympathetic influence over each other. A detailed knowledge of the truths hinted at in these propositions is of the utmost importance to the medical inquirer; for, on the individuality of the organs and their functions on the one hand, and their close sympathetic relations on the other, rests the whole fabric of rational therapeutics; and the more clearly and perfectly these are comprehended by the practitioner, the more definite and exact will be his knowledge, both of diseases and their remedies. Here is indeed a field still open for the investigation of the medical philosopher; for not only are there some organs, as the thymus and thyroid glands, the spleen, etc., of the functions of which we are ignorant, but there is still a great deal to be learned concerning the laws which govern the application of the natural stimuli to their appropriate organs. Many of these stimuli are compounds, the ingredients of which are ever liable to vary, as the atmospheric air for the lungs, aliment for the digestive canal, blood for the vascular and nervous systems, etc. Thus, the atmospheric air, the supporter of the vital function—respiration—many cubic inches of which is brought in contact with the minute vessels of the lungs at each inspiration, is not only composed of oxygen, nitrogen, carbonic acid, ammonia, and gaseous products arising from vegetable and animal matters, the three latter of which are constantly varying, but its thermometric, barometric, hygrometric, and electrical states are still more variable. That all these are constantly exerting a marked influence over the animal system, modifying its liability to particular types or forms of disease, cannot be doubted; for how else can we account for the marked changes which occur in the seat and character of diseases at different parts of the same year, or in different years; yet how vague is our knowledge on these interesting topics; and how many valuable lives have been lost at the commencement of severe epidemics, in endeavoring to combat them by the same means that has proved successful in previous years, before it was learned by experience that the disease, although the same in name, was very different in type. And I apprehend that this will continue to be the case until a medical education is made to cover not only a few text books on anatomy, physiology, surgery, materia medica, practice of medicine, and midwifery, but also the whole field of *natural science.* And whoever shall patiently and carefully investigate all the phenomena of the physical world, including the agents called imponderable, in reference to their influence on the healthy and morbid actions of the animal economy, will confer a great boon on medical science. This we shall undertake, so far as facts are within our reach, in a subsequent part of this essay. If a thorough knowledge of every organ, in its individual capacity, and the physical agents capable of influencing it in health, is thus important, the mutual relation of each to, and its action on all the rest, is no less so. This subject, however, belongs to the last question in the series we have proposed, and hence will be deferred for the present. But while alluding to the agent or agents that excite and maintain the organs in action, we ought not to pass unnoticed the opinions recently advanced by Dr. Metcalfe, in his elaborate work on caloric. In this work, the author has bestowed a vast amount of labor and great ingenuity, in endeavoring to show that caloric is not only the great and only *motor* power of the physical world, but also the grand primary cause of all vital phenomena. Thus, he says, "caloric is not only the most potent and universal stimulant in nature, but the *cause* of *stimulability:*" that is, if we comprehend the author's meaning, caloric is not only a stimulant of the organic actions, but is itself the cause of the *susceptibility* of the organs and tissues to the impressions of stimuli. Again, he says, "if the quantity of life throughout the earth be in proportion to the heating power of the sun, what is the use of animal heat? Is it not the essential character of a *vera causa*, that its power should be proportional to the effects it produces, and that the latter should cease in its absence? Or if an immaterial and unknown principle of life be still admitted, will it explain anything in the absence of caloric?" And again, in speaking of the symptoms of fever, Dr. Metcalfe says, "that the *primary* cause of these and all the other symptoms, is a loss or deficient supply of *caloric*, the *animating principle*, and a consequent vitiated state of the blood." "In short," says an able reviewer, "Dr. Metcalfe has shown that the *anima mundi* of the Romans, the *archeus* of Paracelsus, the *materia subtilis* of Descartes, the *pneumatical body* of Bacon, the unknown *æther* or *spirit* of Newton, the *nervous fluid* of Willis, Bœrhaave, and Cullen, the *materia vitæ* of Hunter, and the *electric fluid* of modern times, are only so many different names of one and the same active principle that produces all the transformations of matter, in accordance with unchangeable laws, and under the guidance of Eternal Wisdom—a *principle* familiarly known under the name of *heat* or *caloric*." It may be thought presumptuous in us, to attempt to call in question the correctness of one of the fundamental doctrines of a work, which has been so uniformly eulogized by reviewers both in England and America. But it seems to us that many positions assumed by Dr. Metcalfe are diametrically opposed to each other, while he is not altogether free from the common error of calling mere effects and coincidences, *causes*. Thus, in the first quotation already made, we have caloric presented both as a powerful stimulant, and *the* cause of "stimulability" or susceptibility to the impression of stimulants. Hence the organic actions or functions are the result of caloric, a material body, stimulating itself—a self-evident absurdity. On page —— of the second volume, we are told by our author, in answer to the inquiry, "Why the cold stage of fever comes on so generally in the forenoon," that "the solution of these queries will be found in the fact, that respiration is always very much diminished during the night, and arrives at the minimum about midnight, when all the *energies* of life are proportionably *reduced;* so that as the coldest part of the twenty-four hours is just before sunrise, if the body be not well covered, or its temperature maintained by artificial warmth, the chill comes on at an early hour, or sometimes before midday."

Again, on page —— of the same volume, we find the following, viz.: "The proximate cause of sleep is an expenditure of the substance and vital energy of the brain, nerves, and voluntary muscles, beyond what they receive when awake; and the specific office of sleep is the *restoration* of what has been wasted by exercise." If we compare these two paragraphs with the third quotation, we have made from the work of Dr. Metcalfe, it will show the following result: 1st. A loss or deficient supply of caloric, the animating or vitalizing principle, is the *primary* cause of the cold stage and all the other symptoms of fever. 2d. The reason why these symptoms so generally commence with chills in the morning, is, because the "respiration is always very much diminished during the night, and all the *energies* of life *proportionably reduced.*" 3d. An *expenditure* of the vital energies during the day is the proximate cause of sleep; the "specific office" of which is to *restore* such expenditure. The English language could scarcely furnish two statements more at variance with each other; and yet there are many such in the work under consideration. But it is our present intention to notice the views of Dr. Metcalfe, only in relation to the agents which excite or maintain the healthy action of our organs. This office, as we have already seen, our author ascribes exclusively to caloric; not even allowing oxygen to participate in any other manner than to aid in developing caloric by uniting with carbon in the lungs. That a quantity of caloric sufficient to maintain a certain degree of temperature, is essential to the existence of life, we have no doubt; but that caloric is the exclusive *cause* of life, and *the* great stimulant of all vital action, we by no means admit. Indeed, Dr. Metcalfe himself contends, that animal heat is derived from caloric generated by the union of oxygen with carbon and hydrogen during the process of respiration; if so, nothing is more plain than the fact that caloric, so far from being a cause of vital action, and the chief stimulant of all our organs, is a mere result of such action, and the product of one organ. For that which is a product of respiration necessarily supposes the pre-existence not only of a respiratory apparatus, but also such apparatus already in action: hence, instead of caloric being the "animating principle—the universal stimulant," and, therefore, the first in the order of sequence, it is plainly the fourth; for we must first have lungs, next they must be endowed with vitality or a susceptibility to impressions—third, they must be stimulated to action; then, and not until then, do we bring the oxygen of the inspired air in contact with the carbon and hydrogen of the blood, and thereby develop caloric. If there is either order in nature or force in logic, there is no escape from this conclusion. Neither will it aid Dr. Metcalfe, to allege that the fœtus is supplied with caloric from the mother before the commencement of respiration; for that will only throw us back on the creation, as recorded in the Book of Genesis. And here we are happily enlightened by the comments of our author himself. For on page 484, he says, "that when it is said God 'breathed into the nostrils of man the breath of life, and man became a living soul,' we can understand *only* that man was created with breathing organs, for the purpose of obtaining life from the atmosphere." Here our author not only admits that life, or what he makes synonymous with it—caloric—is a product of respiration, but expressly states that it comes "from the atmosphere." But breathing is the act of a living being; hence life must precede breath, and breath precede the development of caloric or animal heat, according to the philosophy of Dr. Metcalfe himself. Neither are his arguments derived from the agency of caloric in the germination of seeds and the greater prevalence of vegetable and animal life in the warmest parts of the earth, more sound. He makes "solar caloric cause the germination of seeds, the growth of plants, and all the vital transformations of the vegetable world." We think it would trouble him, however, to make a seed germinate by the application of any degree of caloric, without the presence of both air or oxygen and water. And if the presence and influence of all these agents or substances are equally essential, what right has Dr. Metcalfe to single out caloric as *the* cause, in preference to either of the others. And so far is the hottest part of the earth from being the most productive of vegetable and animal life, that no part of the globe, except the polar circles, is more thinly populated, or more destitute of vegetation, than a great part of the torrid zone. Now, it is a sound axiom in philosophy, which should ever be borne in mind, that where the presence of two, three, or more substances are absolutely essential to the existence of a body in its natural and healthy condition, no one of them can be separated out and assigned as *the cause* of such existence. For the plain reason that whatever is the result of the combined influence of two or more agents, cannot be considered as the result of one of them. Hence, so far is caloric from being "*the* universal stimulant and *the* cause of stimulability" throughout all animate nature, that not a living organized being can exist without the presence and influence of at least *two* other substances, viz.: atmospheric air or oxygen and water. And we might with just as much propriety deprive an animal of life, by placing it in vacuo, or abstracting from it all its water, and then claim that air or water was *the* animating, vitalizing principle; as to plunge a man into a bath of mercury at 30° below zero, and because death was immediate, infer that caloric was the principle of life—as done by Dr. Metcalfe. Indeed, we suppose life would be extinguished quite as soon by plunging a man in a bath of mercury, at a temperature of 662° above zero, as 30° below. And if the latter experiment proves that caloric is *the* life-supporting agent, the former must prove it equally *the* life-destroying agent. But if Dr. Metcalfe has committed the not-uncommon error of reasoning in a circle, by making *animal heat* at once the *cause* and the *product* of vital action, he is equally unfortunate in his explanation of its agency in disease. As will be seen by a quotation already made, he makes a "loss or deficient supply of caloric" the cause of all the symptoms of the first or cold stage of fever, and consequently, also, the cause of the "vitiated state of the blood." According to this sentiment, the chain of causation would run in this wise. What is the cause of fever? A. A loss or deficient supply of caloric. What causes the loss or deficient supply of caloric? A. A diminution of respiration or vitiated state of the blood. What diminishes respiration or vitiates the blood? A. A loss or deficient supply of caloric. If this last answer is denied, for the purpose of avoiding the *argumentum ad circulum*, then, the author's whole doctrine, concerning caloric as a cause of disease, is denied also. For the moment we admit the disturbed respiration and the vitiated state of the blood to *precede* the loss or diminished supply of caloric, that moment we make these the *primary cause* of the febrile phenomena, and the loss of caloric only a result or effect. The truth is, that, after all our generalizations and our most rigid scrutiny, there is in all animate nature a prima causa, an inherent condition of organization that forms a link, a step anterior to, and beyond, human explanation. It is this first link or condition of organization that renders organized matter susceptible to the influence or stimulus alike of caloric, oxygen, electricity, and all other physical agents. And every attempt to change the order of sequence so as to make any one or all of these agents the cause of this primary condition, which we term *vitality*, inevitably involves the author of the attempt in endless contradictions and absurdities. And though Dr. Metcalfe has invested caloric with many new attributes, and in fact made it swallow up electricity and all the other so-called imponderable agents, yet he has not escaped the same result.

In criticizing thus freely some of the propositions contained in Dr. Metcalfe's work on Caloric, we would by no means be understood as denying that it is a work of great value, and the product of a highly-cultivated and investigating mind. We come back, then, to the position, that all animate matter is possessed of a principle of vitality or an essential condition of organization, by which it is rendered susceptible to the impression of oxygen, caloric, etc., as stimuli; and that the functions of the various organs which make up the human frame are the result of the actions induced by the impression of these physical agents on the organized tissue. The particular changes produced in the organic actions and functions, by alterations in these physical stimuli, will be more properly considered under our third inquiry, viz.: Of what morbid changes are our organs susceptible, and what the agents capable of producing those changes?

Art. V.—*An Address to the Westchester County Medical Society, on the Laws of Epidemics, as exhibited in those that have prevailed in that County during the last twenty years.* By Benjamin Bassett, M. D., President of the Society.

To the Editor,—Dear Sir; The within is an address read before the Westchester County Medical Society, by Benjamin Basset, M. D., President of the Society; and by request of the society it is sent to the New York Journal of Medicine and Collateral Sciences, for publication.

By order of the Westchester County Medical Society.

P. Stewart, Secretary.

Peekskill, July 27, 1847.

Gentlemen,—If you have expected from your President to-day a learned treatise on some branch of medical science, you will be disappointed. We all enjoy, in common, the same literary facilities for acquiring medical knowledge, and many of you, probably, improve those facilities much more than I do; for I have an innate want of confidence in the opinions of others, on all doubtful subjects, until all the facts of the case in question are brought within the cognizance of my own senses. This native incredulity will lead to solitary thinking.

You will, therefore, not ascribe to arrogance what is justly due to honest confession, but listen with the greater curiosity to the result of my own reflections, during my clinical practice in epidemic fevers. As it is the first object of this address, to illustrate by facts the laws of epidemics, it is necessary to look back in my history to the fall of 1828. At that time a bilious remittent fever prevailed in the eastern part of this town, with peculiarities which I had never before witnessed. There were not less than seventy-five cases on the sick-list at one time. Although this was a marsh or malarial fever, where intermittent had been the endemic of that district, its history will illustrate the laws of epidemics, as clearly as that of any other fever; for it matters not whether malaria, or any other invisible poison be the originating cause. The striking peculiarity of this endemico-epidemic, was an inordinate sensibility or irritability of the bowels, without diarrhœa. Such cathartics as are usually given in bilious fevers, if taken in the morning to operate in the rising stage of the paroxysm, would, by their excessive irritation, almost extinguish life; their effects would imitate all the phenomena of Asiatic cholera, except the extreme collapse. This perplexing attendant appeared to be connected, as a consequence, with a total suspension of, or diminished excretion of bile. In this embarrassing condition, without medical authority at that day, I waited for the extreme height of the paroxysm, generally 10 o'clock at night, after the irritability had been exhausted by the action of fever; then to give a purging dose of calomel with one grain of opium. This would procure a quiet night, gentle perspiration, dark-colored bilious stools, and a clear remission in the morning. Repeating this remedy two or three nights, would dispel all that irritability, so that we might resume our usual laxatives with impunity.

In the three following years, there were sporadic cases of the same pathological character, but of greater severity—the paroxysms were more irregular. The gastric irritation was so intense, that the patient, rolling on his bed, would name his sufferings an "inexpressible agony." It was necessary for the physician to sit up at night, to watch for the subsiding stage of fever, that he might give with success his soothing cathartic. During these three years I witnessed two interesting cases of cholera asphyxia, which may be called artificial cases. One was produced by a large dose of Epsom salts, followed the next day by a heavy antimonial emetic; the other was the result of a full dose of calomel given for a diarrhœa, to a man at his usual labor, on the day of intermission of a quartan ague. The article during the first hour, produced excessive vomiting and stools of pure blood; after this, other liquid stools, and terminated fatally in sixteen hours. I saw both cases, as counsel, in the state of collapse with icy-cold, and bluish-colored skin. Next year I saw a perfect likeness of these two cases, called Asiatic cholera, in the Park hospital of New York.

You will observe I have proceeded in my history through the four years immediately preceding the epidemic cholera, that climax of all locked states of the excretory organs of the liver, and will now stop to suggest a clue to the true pathology of that mighty scourge.

In the remittent fever which I have described it was necessary to improve the hour and minute of the lowest grade of irritability, and add to this circumstance the soothing power of opium, in order to obtain the innate, specific action of calomel on the secretory and excretory organs of the liver. Secondly, by repeating this action two or three nights, all that irritability would disappear. Thirdly, in the cases of artificial cholera which I have noticed, the Epsom salts discharged no bile, but increased the disease of the bowels, and prepared the way for the antimony, to act by catharsis only, inducing a perfect inverted action of all the abdominal absorbents, which action forms the most prominent feature of the Asiatic cholera. In the other case, calomel by a rapid and irritating operation, induced the same fatal circumstances. Now, place by the side of these facts what history proclaims, viz.: In the first stage of Asiatic cholera, if, by calomel or its compounds, we produce secretion or excretion of bile, all the phenomena of that disease usually disappear. The Board of Health in the city of New York, when they published their review of the late epidemic cholera, gave it as their opinion, that our soothing cathartic was upon the whole the most successful remedy.

First, it appears from these facts, that one certain grade of this bilious derangement is attended with extreme irritability of the bowels, without diarrhœa; and another much higher grade of the same circumstance, will be followed by vomiting, profuse diarrhœa, and finally, by an inverted action of all the abdominal absorbents. Secondly, that *cholera asphyxia*, is nothing more than the highest figure on the scale of bilious fevers. Whenever nature rallies to cast off the deadly incubus, what a turbulent intermittent or remittent fever follows in its train! Thirdly, that pathologists have looked to the wrong link in the chain of connected causation, when they ascribed all the phenomena of cholera to a nervous source.

To return to our history, I observe from the close of 1832 to this day, opium, either alone, or combined with mercurials, has in every case of bilious remittent fever on our malarial tracts, proved peculiarly injurious. Our excellent compound, so indispensable in the preceding years, would now cause headache, vertigo, dry tongue, and imperfect remissions. When, in 1833, I first recognised this "new constitution" of fever, as father Sydenham would have called it, I was perplexed to find the diagnostic symptom, which rendered the fever so different in its relation to that important remedy. It was soon manifested by a visible difference in the bilious circumstances of the cases. Now, there was a free and preternatural secretion and excretion of yellow bile, before, all excretion of bile was suspended.

In these latter years, I have known a compound powder of opium, ipecac., and calomel, given as a purgative every three hours, followed by coma, delirium, subsultus and death, in a common case of endemic remittent fever. The free secretion and excretion of bile, appeared to be nature's means of relieving the portal circulation in its morbid state of functional action. Opium in these cases, by its peculiar astringency, appeared to interfere with nature's operations; and, either through nervous sympathy, or by vitiating the blood through the chylo-poietic office of the liver, would throw the morbid consequences upon the brain. In the former constitution of fever, you will observe opium was a *sine qua non*, by which we could obtain the peculiar medical properties of a large calomel purge. These different bilious circumstances in all cases of bilious fevers, form the basis of my practical rules, the adoption of which I have never had occasion to regret. I will now pass on to review that singular epidemic of 1844, called the "*Tyler Grip.*"

The first case in my practice was a master of one our market sloops, who returned sick from the city before the poisonous cause had pervaded our village. The case exhibited the usual phenomena of bilious fever, with an incessant cough. He took a purgative dose of calomel, to be followed next morning with infusion of senna and salts—next day dismissed, cured. At night of this day, his brother returned from New York with a similar disease, which, by the same remedies, terminated in twenty-four hours. He remarked that such a disease was rife in the city; that it was dignified by the name of "Tyler Grip." I named it the ephemeral bilious fever.

The third case was a black woman in one of our village hotels. This was an interesting case, for it illustrates the law of epidemics, which in my solitary thinking, will ever guide me in all my prescriptions. I saw her first at 9 o'clock at night, with an apparent pleuritis of the highest grade, groaning at every respiration, pulse full, frequent and bounding. Her mistress had already given her two tea-spoonfuls of laudanum. I opened a vein in the arm, and saw the patient in profound sleep whilst the blood was running. Left her without further prescription. At 1 o'clock of that same night, I was again summoned to her presence on account of the return of the pain, but in the opposite side of the chest. Re-opened the same vein, which bled freely, without any relief—gave one grain of opium with twenty grains of calomel. Next morning found her in a furious delirium, requiring two or three attendants to keep her in bed. No motion from the bowels—forced down a dose of senna and salts. At noon found her calm and rational, in gentle perspiration, pulse natural, and our pseudo-pleuritis had vanished entirely. The effects of opium on the brain in bilious fevers had subsided, and the calomel had exerted its specific powers in equalizing action. Soon after this visit, free evacuations from the bowels terminated the disease, and at evening the patient mingled with the other servants in dressing the tables for tea. I now recognised the presence of that secret intercurrent cause which produced the "Tyler Grip" of the city. The patient lived on the banks of the Hudson, to feel the first effects of its approach to our village. In the fourth case, I experimented by giving forty grains of ipecac. diffused in a pint of warm water; a wine-glassfull every half hour. This produced gentle vomiting, perspiration, and some catharsis, without the least benefit in the case. After this, eight grains of calomel soon expelled the disease.

The disease now became rife throughout the whole village, assuming as many forms as nosologists can name under the general head of phlegmasiæ. I often met my neighbors in the streets with cough and headache; I always charged them with having had recourse to the drug shops for cough drops, containing laudanum or elixir of paregoric. Having plead guilty to the charge, they would consent to take a dose of the mercurial, at whose presence the cough would vanish as a shadow. In this ephemeral bilious fever, opium would rivet the cough in every case until the patient called to his aid the appropriate remedy. In cases of children and young infants, the epidemic would exhibit all the alarming symptoms of croup, for which I at first gave emetics in vain. The remedy appropriate to the epidemic must come forth at last. Finally, I was resolved to know nothing throughout my field of practice, save the "Tyler Grip."

The invisible cause had put its stamp on the abdominal viscera of the whole community, and all the pseudo forms of the phlegmasiæ were the result of some fortuitous freaks of the nervous system. With this perfect confidence in the law of epidemics, I often sent to the care of anxious mothers of children in croup, our appropriate dose of calomel, without visiting the cases; and, in no instance was I ever disappointed. In the autumnal months of this year, the typhoid fever in its migratory character, wandered, for the first time in twenty years, on to our field of practice. You have your medical literature, for scientific descriptions of this disease—I describe it as I have seen it, with my single eye to the law of epidemics. The only variety which I have seen, in the autumnal months, has been strictly bilious, and confirms the propriety of the German writers in calling it the abdominal typhus. Another fact I have observed: it is not a marsh or malarial fever, for it prevails most out of the malarial districts; whilst on the other hand, in such districts where the ague and fever is the endemic of the place, the fevers prevailing at the same time have been free from diarrhœa, bearing all the usual cathartics given in bilious remittent fever.

Whilst I was in Connecticut in 1822–'23, the typhoid fever prevailed in a town where malaria never existed: it was called the typhus fever; but an aged physician who had retired from practice, remarked to me, "this is not the typhus fever, it is a bilious remittent." He could not recognise the old cerebral typhus, which he had been accustomed to call typhus through a long life of practice; for it was truly abdominal, and is always remittent, until the cerebral symptoms predict a fatal termination. The first case I saw at Peekskill, I visited as counsel about the ninth or tenth day of the fever; his first physician, for he now had the second, had dosed him freely with antimonial powder and nitrate of potash. The remissions were long; but during the paroxysms of fever, the gastro-enterite irritation was so excessive as to convulse all the extremities, and death soon put an end to his sufferings. Soon after this I had the charge of two cases in one house at the same time. Headache was the chief source of suffering the first day: a purging dose of calomel at night relieved that symptom, and procured a fair remission the next morning. After this the symptoms were diarrhœa, with liquid yellow stools, ringing sound in the ears, partial deafness, imperfect vision when rising from the pillow; in one of the cases, delirium at night with slight subsultus and unnatural speech. Both had fair remissions in the morning with sound minds, and both had a brown, dry stripe in the centre of the tongue. In the course of the first eight days, calomel in a smaller quantity, with a few grains of rhubarb, were repeated twice in each case, with some temporary check to the diarrhœa. Blisters to the epigastrium, and an alterative powder of rhubarb and ipecac., two grains of the former with one of the latter, every four hours, nitrous ether, mucilages, infusion of hops, sweet milk, gruel made of arrowroot, or wheat-flour, were all useful auxiliaries in contending with this disease; but opium, by that practical rule in relation to liquid yellow stools, was studiously excluded from every prescription. Whenever the astringency of rhubarb seemed to imitate the properties of opium, by inducing a dull, heavy feeling in the head, a dry tongue, and imperfect remission in the morning, it was omitted for ipecac. alone. One of these cases convalesced on the 16th, the other on the 19th day of the disease.

The next case was a youth of good constitution, eighteen years of age, with symptoms similar to those of the other two cases; profuse diarrhœa, good remissions in the morning, with sound mind until the morning of the eighth day of his fever, when to my surprise I found him in coma, delirium, subsultus, and without any remission in his fever. Whilst pondering upon this mysterious change, his mother remarked, that she had given him thirty drops of laudanum to procure rest for herself and her son, too. This interference of ignorance was fatal. No antidotes could remove the cerebral symptoms, or restore the remissions; he died on the 11th day. It was observable that the stools had increased in frequency; but they had lost their yellow color.

There were other cases during the season all with favorable terminations, but generally more protracted, continuing from twenty-five to thirty days. In the course of the winter there were a few sporadic cases, but they were more cerebral from the beginning and less abdominal, continuing in one case fifty days. In this last case, the patient was self-treated by vegetable pills for the first eight days, in order to relieve his head. A few small purgative doses of calomel were given occasionally with benefit; but the alterative powder of rhubarb and ipecac., infusion of serpentaria, and blisters to the cervical vertebræ, were the chief remedies. The fever was manifestly remittent to the last. All opiates and quinine were studiously excluded; and a happy typho-mania was his constant companion, and for twenty days he was unconscious of passing events, or of the presence of his dearest friends. He is now well, in the State of Maine.

In the season of 1845, the typhoid fever was more rife than in the preceding year, but of a milder character. The symptoms were similar; yet there was a uniform difference in its relation to calomel. The pioneer dose must be smaller; it passed too rapidly through the bowels, irritating the mucous membrane, or *Peyer's* glands, the disease of which characterizes typhoid fever; and generally it was not to be repeated. This was a uniform fact through the whole community. I used less calomel during the whole epidemic, than I sometimes use in one week for other diseases; yet the pioneer dose was indispensable to relieve the head. The diarrhœa and fever would gradually disappear under our alterative powders of rhubarb and ipecac., nitrous ether, serpentaria, and sweet milk diet. There were a few cases in young subjects, which were comatose and protracted; these were benefited by a pair of leeches to the temples, and blisters to the spine; but in no case did I see the least tendency to subsultus. It was late in December when I used the first particle of opium in any case of fever in the year 1845. Unquestionably, the several varieties of typhoid fever which medical authors describe, are the result of different seasons of the year, and of a variety of peculiar epidemic causes. In every winter there is less tendency to diarrhœa; and in the case to which I allude, the subject had a predisposition to pulmonic disease, in a consumptive family. The fever was remittent and apparently bilious; but after the third week she took a Dover's powder every night; it favored her expectoration, but supported a happy typho-mania forty days. 1846 furnished many interesting cases of typhoid fever. The first case I saw was from the city of New York; a man passing through the village to the house of a friend, four miles east. He consulted me about his headache, vertigo, and fever at night. I gave him eight grains of calomel, to be taken that night. This was followed by a diarrhœa three days before I was called to visit him; his fever was remittent, but the paroxysm was introduced by gastric distress which he called "agony;" his tongue dry and tremulous, with a brown stripe in the centre; his stools now were less yellow, but watery, without mucus. He begged to be relieved of that "agony." Here I was put to the torturing trial of deciding the question of opium or not opium. I hesitated with trembling until I decided to give four grains of calomel, with a small quantity of opium, to be taken that night. Next day found him comatose, with subsultus, inability to extend his tongue, it was so tremulous; but when aroused from sleep he was conscious of relief. After this he took no other remedies than what I used in the autumn of 1845; but he continued semi-comatose, and semi-delirious twenty-five days. His diarrhœa gradually disappeared, and his relish of Indian *suppawn* and milk continued until his fever ceased.

The second case was also from New York, having been transported to this village after two weeks' sickness in that city. His diarrhœa had been and was now profuse; sometimes yellow liquid stools; at others, watery without mucus. What course of treatment his physician had pursued, could not be ascertained. His remissions in the morning were clear, with sound mind; but the pulse at this time was feeble, and sordes began to accumulate on the teeth. Blisters to the epigastrium, our alterative powder of rhubarb and ipecac., infusion of hops and serpentaria, diet of arrowroot and mucilages, were all administered four or five days without any apparent impression on the inveterate diarrhœa or fever. At length, having escaped fatality in the last-mentioned case, I gave a small dose of calomel and opium at night. Next morning the coma, subsultus, delirium, and absence of remission in the fever, indicated, too clearly, the fatal consequences of our experiment. The last case which I shall mention, lest I weary your patience, is one of intense interest, as it confirms the truth of our unerring law of epidemics.

The subject, a lady of feeble constitution, the mother of one child two years old. About six weeks previous to my first visit, she was attacked in the city of New York with a mild degree of dysentery, having stools of bloody mucus. This was followed by a moderate diarrhœa, and she visited her friends in the country. As her health improved, she returned to her home in the city; but was soon compelled, by an alarming increase of her disease, to be taken back to her friends. I found her with diarrhœa which was said to be chronic, a reddish tongue, with a brown stripe in the centre, febrile pulse, and a sense of soreness in all her extremities. She took a powder of three grains of calomel, with opium and ipecac. Ordered next day to take a pill of blue mass, and Dover's powder in the morning and evening. On the third day, I saw her in typho-mania, subsultus, distressing cough, and rapid respiration. The whole concourse of friends, alarmed at the apparent evidence of "hasty consumption," had already sent for counsel. I soon observed that the counsel's attention could not be easily diverted from the contents of the thorax. But our compound remedy had so clearly developed the abdominal typhus, that the law of epidemics would keep my single eye fixed on the abdominal viscera. She now took a powder of ipecac., with a small proportion of camphor, every four hours, through several days in succession. The diarrhœa continued, but was changed to a free discharge of copious liquid yellow stools. In one week the respiration became natural, and the cough ceased; but the diarrhœa, fever with distinct remissions, and constant delirium, continued until I had visited her thirty-two days. Rhubarb was occasionally united with the ipecac., infusion of hops and of the serpentaria, mucilages, and diet of Indian *suppawn* and milk, were all useful auxiliaries in the case. The delirium was followed by a childish mental imbecility; the patient crying for her favorite article of diet, candies, and infantile toys. She is now well, in the city of Now York.

This law of epidemics, so important as a guide in diagnosis, is founded on this principle, viz.: The whole community are under the influence of one common invisible cause of disease; that the first effect of this invisible agent, is a pathological unity in the prime-moving cause of all the various phenomena of the different cases; that there is unity in relation to certain leading remedies. For this reason, I have been compelled to lay on the shelf all antimonial preparations, nitrate of potash, and even Coxe's hive syrup. The continued diseased mucous membrane forbids the use of these articles. They have had their day of usefulness, and they may have it again; but not until the present "constitution" of febrile diseases shall have passed away. At the same time the ipecacuanha, and the eupatorium perfoliatum have risen in importance.

Our epidemic of 1847, thus far, could, in more able hands, furnish an interesting subject for a volume. I will mention some few of its characteristics. It was a continuance of the old tendency to abdominal disease; even in the winter and vernal months, it was highly bilious. One of its outward forms was erysipelas. M. Desault, in his journal of the Hotel Dieu, at Paris, asserted forty years ago, that erysipelas is always the result of a bilious cause. In our fevers of the winter, Brandreth's, Lee's, or any other pills of the vegetable gums, would leave a distressing nausea, by irritating the mucous membrane; and some three or four hours after brisk evacuations from the bowels, the patient would vomit yellow bile, whilst the headache and fever would rage with increased violence until calomel came to the rescue. In such cases, the mercurial purge must be given in two divided doses, three hours intervening, that it may exert its slow specific powers in equalizing action. I derived no benefit from emetics. A pioneer dose of calomel at night, with Epsom salts or castor oil next morning, was indispensable in all cases. The "Samson of the materia medica," in no epidemic was ever entitled to higher honors. One of the most curious properties of this epidemic was its innumerable outward forms; but in all cases the fever was remittent.

It appeared from the operation of remedies, that some morbid action in the portal circulation was the prime-moving cause of all the phenomena; and this circumstance, through the fortuitous freaks of the nervous system, would send its influence to as many different tissues and localities, as the disease showed external forms. If directed to the skin, there was a case of purple erysipelas; if to the glandular system, there were soreness and swellings of the parotids, submaxillary, the tonsils, and cervical glands; if to the mucous membrane, there were cough, from irritation of the throat, without swelling of the tonsils, sore throat, otalgia, sore nostrils, and weeping eyes, or a painful diarrhœa;

but the bronchial tubes, and the whole pulmonic organization, seemed to be exempt from all these fortuitous circumstances. Sometimes the disease would assume the form of inflammatory rheumatism, and that in the same house at the same time, in which the disease was prevailing in a different form. The rheumatism would disappear, by the occurrence of an eruption on the skin. The diarrhœa was always painful, with some evidence of peritoneal inflammation of the erysipelatous kind. In this case it was necessary to add opium to our mercurials. The local inflammation seemed to interpose an obstacle to the tendency of the opium to link cerebral with abdominal disease in bilious fevers. In one case of this character, the diarrhœa continued five days, with chills alternating with febrile heat, before the patient consulted a physician. Now, the purple erysipelas had wandered downward, and fixed itself through the whole extent of the inward half of the right leg. Some days after it changed its location to the other side, and became phlegmonous, discharging matter. The patient was moved twelve miles to the house of his father, where the case terminated fatally, proving itself contagious, causing the death of his mother by erysipelas of the face, and affecting others in the same family.

Now, there is an important question connected with these contagious cases of erysipelas, which I will lay before you, to close my address.

Does this contagion arm the accoucheur with the cause of a deadly puerperal peritonitis? Whilst attending the above case I lost two such patients, both sound, robust constitutions, having short and easy labors. One sickened forty-eight, the other seventy-two hours after their accouchment. Dr. Stewart, while attending bad cases of erysipelas, lost three puerperal cases, and Dr. Hopkins one. The women exhibit no external marks of erysipelas, but the infants die a few days after the death of their mothers, by a purple erysipelas of the whole body. In the New York Journal of Medicine, you have doubtless seen the history of such an epidemic in the western part of this state.* There was a general alarm on the subject of this serious question. In Dr. Ranking's Half-yearly Abstract of the Medical Sciences, published in December, 1846, you will find a report of Dr. Peddie, on epidemic erysipelas, as connected with a fatal puerperal peritonitis. I will extract for your convenience one of his conclusions, which his own personal experience had led him to adopt: "Patients in child-bed should either not be attended at the same period with cases of malignant or severe erysipelas, or proper caution should be observed as to ablutions, more especially after contact with any discharge from such patients, and when a case of puerperal fever does occur, chlorinated ablutions should be used; and if a second occur, he should withdraw from obstetrical practice for two or three weeks, if possible."

The question is involved in darkness, after all the facts disclosed in publications. The accoucheur in one of my cases was present with the patient in labor one half hour, the infant in his hands two minutes, then delivered to the hands of the nurse. Did the accoucheur communicate the disease to both at the same time; if so, why do not both sicken at the same time? Does the infant contract the disease from its mother's milk? In this very case a healthy infant five months old without my orders, drew the breasts of the patient twice on the day of her death, and that with perfect impunity; yet, the patient's infant some days after dies of erysipelas. The mother could not have the disease communicated by the accoucheur, so as to affect the child in one half hour previous to their separation. It is one of the most important questions ever presented for the contemplation of our profession, and facts well attested urge upon us the exercise of extreme caution.

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* By Austin Flint, M. D., editor of the Buffalo Medical Journal, etc.

Art. VI.—*Report of a Committee to the Oneida County (N. Y.) Medical Society.* By John McCall, M. D., late President of the State Medical Society.

To the Editor of the New-York Journal of Medicine and the Collateral Sciences:

Dear Sir,—Should the following matters, which are some of the more important of the transactions of the late annual meeting of our society, held the first Tuesday in July last, be deemed worthy of a place in your valuable and most useful Journal, they are at your service, with such corrections and amendments as you may think necessary.

Their publication may, perhaps, induce other Medical Societies to take some action of the kind, as a step towards "medical reform." The next meeting of our society will be held on the first Tuesday of October next, at this place; hitherto we have had two regular yearly meetings; for the future we hope to meet at least three, if not four times, in the year. Very truly and sincerely,

JOHN McCALL.

Utica, August, 1847.

The committee to whom has been referred the subject matter in relation to the formation of a portion of the society into sections, in order that more laborers may be brought into the field in behalf of medical improvement, beg leave to present the following Report, on the preamble and resolution offered by one of your committee, (John McCall,) at the last meeting. The preamble and resolution are as follows:

"Whereas, the prosperity and usefulness of this, as of every society, must depend in a great measure on the interest felt and the labors performed by all its members. And, whereas, an idea has obtained, and is yet entertained, that our meetings, for some time past, have become less interesting, and virtually useless to many of the country members, therefore,

"Resolved, That for the purpose of enlisting the best feelings of all in its cause, and for securing and promoting the welfare of the society, a portion thereof should be divided into several sections, for the purpose of apportioning among them the labor which is deemed so necessary in sustaining our character and usefulness as an association."

It will not be pretended that we have, in all cases, improved to the best advantage the privileges and opportunities connected with our meetings.

These might have been made more useful to ourselves and our profession, as well as beneficial to the community in which we live; yet, under the circumstances, it is believed that collectively, if not individually, we have contributed at all our meetings a reasonable share of labor, in the way of discourses, reports, etc., both interesting and useful to the members generally. And as it regards the idea of a diminution of interest felt and complained of by some, we have only to remark, that it will give us great pleasure in being instrumental in removing any future occasion for a like complaint; and to that end we wish, if possible, (and certainly there is no difficulty whatever in the way,) to devise such means as shall stimulate the society to new and more vigorous action in behalf of our noble profession.

Several means have been tried to engage the attention and secure the best interests of the members, by the appointment of committees in the several towns, upon the subject of insanity, the number of insane, the form and modification of that fearful disease, etc., and in the distribution of the offices among the brethren throughout the several towns, in order that a good feeling of brotherhood, and a higher and more exalted sense of respect for our profession and ourselves might be thus elicited and maintained.

We had hoped that those, thus selected, would have availed themselves of the opportunity of presenting us with at least a share of the fruit gathered from the field of their own labors and experience. In a few instances, we have been favored with excellent articles and highly-interesting reports, while, in others, we were sadly disappointed. But we will not relinquish the hope that our members will yet do their duty like men. And as there is nothing like trying, while backed up with a determination upon a course of right doing, it is hoped and believed that the formation of our younger members into sections, cannot fail to accomplish, in a short time, much good, not only to the society, but in securing a desirable share of honor and glory for themselves.

For all present purposes, it is thought that seven sections, composed of three members in each, may be sufficient as a test of what may be done in that way, on the plan of the British Association. Notwithstanding the great and important improvements made in medicine within the recollection of some of your committee, and especially in physiology, pathology, surgery, midwifery, and in the treatment of many diseases, more remains to be done.

In the field of mental philosophy, which is an all-important part of medicine, much ground remains in a state of barrenness. Truly, this is the unweeded garden grown to seed. "Things rank and gross in ignorance possess it" entirely.

What system of mental philosophy have we? Have we any founded on a knowledge of the physiology and pathology of the brain?

The department of therapeutics, too, requires more careful investigation, to enable us to judge correctly as to what credit may be due, in all cases, to those articles used and considered as medicines.

It is always desirable to know, if possible, what honor should be given to the medical attendant and his means, at the same time not forgetting the restorative powers of the human economy, and their agency in the cure of diseases. "Nulla medicina aliquando optima medicina." No medicine was once considered, under certain circumstances, as the best medicine. Whether this be a sound maxim, is a matter to be determined by the members individually, though, in our judgment, the great principles in medicine, like those in other sciences, are as unchangeable as any of God's laws. The venerable and illustrious Hufeland confessed that two-thirds of his patients would have recovered without his prescriptions; in other words, by the salutary efforts of nature.

Medicine depends, for its right understanding, upon observation and sound reflection. And even here, our observations must be progressive; again and again repeated, and never stationary in our researches. The science of medicine is, in its very nature, progressive, like all human knowledge. Progression is one of God's laws.

While in other hands, it continued in the same dull round, without making any sensible or useful advancement in the way of improvement.

We would thank God that we live in an age in which mighty achievements are being made in the cause of humanity; and that the spirit of improvement, for the good of our race, is abroad in the world.

The great object with the medical inquirer is, the ascertainment of medical and scientific truth, and its right application for the good of mankind. Now, for the attainment of that end, the division of labor is well calculated to accomplish that purpose. No one, however highly favored his mental constitution and attainments in knowledge, can make himself master of all the branches of the healing art. Life is too short—our profession, as an art and science, too long—opportunities rare, and too often neglected—experience frequently deceitful, and judgment ever difficult, to enable even a John Hunter to become eminently great and skilful in all the departments of medicine.

In such a state of things, the formation and arrangement of our forces into efficient sections, or committees, becomes advisable and necessary.

In all assemblies for the transaction of business, some such course is taken. Nothing is done without the instrumentality of committees. They are the moving springs of all conventions, and, without them, the body cannot move onward with life and energy in the great objects in which the whole are engaged. Now for the sections.

To the 1st section should be entrusted the great subject of "Medical Reform."

To the 2d, Public Hygiene, confined to our own county, (Oneida).

To the 3d, Insanity—its causes and forms, together with the all-important question of moral responsibility.

To the 4th, the prominent diseases of our county, their causes, and a full account of the means of treatment.

To the 5th, the best means of studying the human constitution, in health and disease.

To the 6th, the laws of hereditary descent, their influence on the human race, and the best means of prolonging life.

To the 7th, the great purpose of the science of medicine.

The idea of reform is not confined to medicine—law and theology are now being moved by the same mighty agent.

But the great matter is, to know what reformation is most needed, either among the members of the healing art, or in its principles and practice, and what are the best means for their attainment.

We think there is yet room for improvement in all these respects. "Medical reform," we think, should bring to its aid the best talents among us.

This subject has engaged, and is still engaging, many of the ablest minds in England, Scotland, Ireland, France, and the United States.

A medical congress assembled lately in Paris, and from what we have been able to learn of its doings, much useful labor was accomplished. In no country are the laws and regulations for the government of the medical profession better than in France. The course of study and attainments required, before being admitted to practice, are decidedly better than in England or our own country. But we must not forget our own National Medical Convention, which assembled in May last, in the city of Philadelphia. This is the second meeting of the kind which has met in our country.

Its labors, thus far, are considered to have been greater and more promising of good than its most sanguine friends had anticipated or expected. We believe the "American Medical Association" will be an honor and a blessing to our nation.

The subject of Hygiene, as far as it regards the community in which we live, is a matter of the highest importance; and, as such, should be entrusted to those who will not fail to give it all the attention and consideration it so justly merits.

Insanity, its causes, forms, etc., and the question of moral responsibility, are matters which concern not only the medical profession, but the community at large. And it should be ever borne in mind, that the only reliable foundation on which rests all knowledge of this, as of the whole subject of mental philosophy, is a thorough acquaintance with the physiology and pathology of the encephalon, and the nervous system generally. The philosophy of mind, and of everything in relation to human nature and its relationship with the external world, belongs, legitimately, to the medical philosopher.

The fourth division, we trust, will not fail to give us much useful information in regard to the more common and serious diseases confined to our county, with their causes, and the chief and important means of treatment. It has ever been a difficult and important thing, to determine fully, in every case, not only the causes and nature of diseases, but the use and abuse of medicines. More light and knowledge upon this subject would relieve us greatly.

The next section has assigned to it a subject of the highest value to medicine, and confessedly important to the welfare and prosperity of the human race. The laws of hereditary descent, their influence on mankind, and the means of prolonging life, are surely eminently important. We think more attention and strict medical inquiry should be given this matter, believing, as we do, that those laws are not yet rightly understood.

Man can never be happy until he acquaints himself perfectly with the laws of his own nature, and his relation with the external world, submitting himself, at the same time, to them and the will of his Creator.

The seventh and last section regards the great aim and object of the science of medicine. This is a subject upon which much ignorance obtains among the mass of mankind, who think the only thing that a physician has to do, is to bleed and give drugs. And should he honestly decline doing either, for the good reason, that he could prescribe other and better means for his patient, he need not be surprised, for the thing has happened a thousand times, if he should be dismissed, and another more ready and willing hand employed in his place, who, perhaps, may be so fortunate as to build, if not establish permanently, some reputation upon the case.

The great reformer, and founder of "similia similibus curantur," made it a rule, we are assured, to administer something in the shape of medicine, in every case; and, perhaps, in a majority of instances, such practice will best succeed, in these days of pretension and humbug. But the honest and skilful physician will never do anything to disturb his patient's health or comfort, merely because he may think it necessary to take medicine, or submit to such means as would, in fact, injure rather than benefit himself; nor will the physician's sense of justice, or the dignity of his noble and useful profession, allow him to fall into such miserable and disgraceful practices.

It has long seemed to me as if medical men were regarded in the light of mere druggists or apothecaries, whose only business is to dispense medicines; but we claim for our profession a higher and nobler vocation: that of giving mankind a correct knowledge of themselves, and the best means of preserving health and prolonging life to a good old age. Now, to accomplish this, they must be instructed in a knowledge of their own constitutions, and especially the philosophy of mind.

Man's understanding of himself, as to the great purposes of life, must be greatly enlightened, and the moral sentiments fully directed and rightly controlled, before he can attain to the true dignity of his nature, and fulfil the great purpose of his creation.

Ignorance, and a want of sound understanding, were regarded by two of the best and wisest teachers the world has ever known as the worst evils, and knowledge and understanding as the greatest good. We hazard nothing in saying, that a knowledge of the human constitution, both of mind and body, is pre-eminently useful, and, in importance, far above all other human attainments.

It is our glorious privilege to be employed as the instruments in carrying forward this great and mighty work of regenerating mankind.

Resolved, That, in order to carry into immediate and successful operation the objects set forth in the foregoing Report, there shall be organized from the society seven sections, and the same are hereby formed, consisting of three members in each. Said sections shall so arrange their duties as to favor the meetings with not less than two discourses at each of its sittings.

All which is respectfully submitted.

John McCall, Chairman.

Drs. Coventry, Hastings, Pope, Guiteau, Torbit, Preston, and McCall, were elected as chairmen of the sections. Prof. Coventry of the first, and McCall of the third sections.

Offered by John McCall:

Whereas, the good work of Medical Reform having been commenced, and, thus far, well begun and carried out by our late "National Medical Convention," in the organization of the "American Medical Association," which is destined, it is believed, to elevate the medical profession in the United States, and render it an honor and a blessing to the nation; And, whereas, it now becomes the interest as well as the duty of the whole profession throughout the land, to adopt and carry forward with spirit, as far as may be, the great principles and measures now put forth to the world, therefore,

Resolved, That two delegates from this society be elected at this meeting, to attend the next annual sitting of said Association, to be held the first Tuesday in May next, at the city of Baltimore.

Unanimously carried.

Prof. Charles B. Coventry and Dr. John McCall were elected said delegates.

Art. VII.—*Puerperal Anæmia.* By H. N. Bennett, M. D., of Bethel, Ct.—(Concluded.)

The pathological views which I have advanced in relation to this disease, I consider fairly deducible from a variety of circumstances, among which are, the period of its occurrence, the general appearance of the patients laboring under it, and the physical character of those individuals who are subject to it.

I have previously alluded to the changes which occur in the proportions of the constituent principles of the blood, during the latter months of pregnancy. I have never witnessed the characteristic symptoms of the puerperal anæmia prior to the sixth month, and it rarely occurs previous to the seventh month of gestation. At this period it is common, and in females who bear children in rapid succession, and who have once suffered from the disease, it almost invariably makes its appearance some weeks anterior to delivery, a time when the *physiological* condition of the female is one of anæmia in a minor degree.

Any one who has seen this disease, will not have failed to remark the general pallor of the cutaneous surface. This appearance of the skin, taken separately, is very similar to that of most anæmic conditions; but, as I have before observed, it is not at first accompanied by emaciation; the female preserves her usual *em bon point*, and the *facies* is not expressive of visceral disease. In short, there is no indication of any other than a hæmatic lesion, to be derived from the general expression of the patient. There is, perhaps, in the early stages, a certain degree of similarity between the appearance of one laboring under this affection, and a chlorotic female. The symptoms upon the part of the digestive apparatus, and of the nervous system, are also similar to those of chlorosis. At a later period this symptomatic analogy ceases, and the puerperal anæmia manifests its peculiar pathological expressions. I conceive that the anasarca, which frequently occurs, can be referable to no other lesion than that of the fluids, since, at the period of the first occurrence of the infiltration there is evidently no organic difficulty sufficient to account for it. Indeed, a remarkable feature of this disease, is its very slight tendency to involve the more important viscera in serious organic changes, even when it is in its worst forms. The cessation of the causes which have produced it, namely, gestation and lactation, almost invariably suspends its farther progress, and the female is restored in a short time to her normal condition. This latter fact is also, to my mind, a strong argument in favor of the pathological views which I have taken.

In reference to the physical character of females who suffer from this complaint, my experience is very much in opposition to the assertion of Dr. Hale, that "women of a vigorous constitution and of good general health are subject to it, as well as those who are feeble." The great majority of the cases which have occurred under my observation, have been those of delicate, irritable females, and disposed to hysterical affections. And those of a vigorous constitution, who have suffered from this disease, are females who have borne children in rapid succession, having scarcely time to recover from the exhaustion consequent upon parturition and lactation, before another conception.

Treatment.—If I am not mistaken in the results of my own practice, much benefit may be derived in this disease from proper regimen as well as medicine. I need scarcely say, in view of the pathological opinions which I have advocated, that I consider venesection inadmissible, and I refer to the subject, merely for the purpose of denouncing, in females who present the first symptoms of this affection, or who have suffered from it in former pregnancies, the *saignée de complaisance*, so frequently practised upon pregnant women. If it is contra-indicated, it is none the less malpractice for having been solicited by the patient. In the first stages, this difficulty may be often counteracted by the proper use of nutritious and easily-digestible food, together with porter as a drink, or small doses of some tonic mixture. The mist. fer. composita has been an efficient medicine in my hands, not only in the commencement of the disease, but after the mouth and gastro-intestinal tube had become seriously implicated. I have also prescribed, with advantage, a pill composed of prot. carb. of iron and ext. hyos. given three or four times daily. This preparation is preferable where there is much diarrhœa. I have been compelled, however, in order to control this latter symptom, to resort to opium in repeated doses, the bowels being excessively irritable. The nitrate of silver is also a valuable agent, and has succeeded in some cases in which the preparations of iron were wholly ineffectual. I believe it to be particularly serviceable where the mouth is severely affected A neighboring practitioner considers it almost a specific, in those cases of "Sore Mouth" which occur subsequent to delivery.

There are some cases which become severe prior to confinement, in spite of every method of treatment, and in these, after the birth of the child, I uniformly recommend to make no attempt at suckling. Pursuing this advice, I have seen females recover their usual health in a short period, after having manifested symptoms of a threatening nature, and I have been sometimes surprised at the rapidity of their restoration.

The cases which are most remediable by medicine, are those which occur during lactation, and the judicious employment of tonics, together with a nutritive diet, will rarely fail to mitigate, though it may be insufficient to cure the disease. Instances are not wanting, however, in which weaning must be resorted to, in order to avoid the continuance and progress of the malady; it will be arrested by nothing else, and, in feeble and delicate females, there is much reason to fear from its continuation a serious and irreparable undermining of the constitution. The affection of the mouth, is, according to my experience, rarely benefitted by topical applications, when unaccompanied by general means. The infusion of oak bark, and other mild astringents, have sometimes appeared to allay the irritation of the inflamed parts, temporarily.

In a general way, I believe the ferruginous preparations are the most appropriate medicines in this disease, and they may be varied or selected according to the circumstances of the case. The bitter tonics, however, are occasionally very useful. A favorite bitter with me, and one which I have seen succeed when iron was not tolerated in any form, is a wine of the bark of the common whitewood, (Liriodendron tulipifera). I attribute its superior efficacy to the slight balsamic properties which it evidently possesses, in addition to its bitter principle.

ART. VIII.—*Case of sudden Death, from Entrance of Air into the Internal Jugular Vein.* Reported by RICHARD H. COOLIDGE, M. D., Assistant Surgeon U. S. Army.

ON Sunday, the 13th of December, 1840, I assisted Doctors Hoffman and Aitkens in the examination of the body of Mr. J——, at the Mansion House, in your city. It appeared that the deceased had been under the care of Doctor Aitkens, with variola discreta, from which it was probable he would recover. In a temporary delirium, he seized a razor and inflicted a wound, commencing over the sterno-mastoid muscle, about three fingers breadth below the lobe of the left ear, and extending to a corresponding point on the right side. In the course of the wound the left internal jugular vein was divided obliquely for about two-thirds of its circumference, and the carotid artery and pneumo-gastric nerve were exposed, but not injured; the razor then passed through the larynx into the pharynx, so that the finger could be passed from the external wound into the trachea and œsophagus; the remainder of the incision was superficial. On the entrance of Doctor Hoffman, the patient was lying with his left side on the floor, with the head bent forward so as partially to close the wound. His back was towards the door, and the noise made by the Doctor on entering the room, attracted his attention, and caused him to turn his head in that direction, thus opening the wound; a convulsive struggle ensued, and before any assistance could be rendered, he had ceased to exist. The hemorrhage had not been great, the amount being estimated by the appearance of the carpet and clothing not to exceed two pints. My impression is, that when Doctor Hoffman entered, Doctor Aitkens was by the side of the wounded man, that the hemorrhage had been partially arrested, and that the pulse was good, and immediate death not expected; but there is no mention of this in my note-book from which this case is transcribed.

Autopsy.—This was not as complete as desirable, owing to the anxiety of some persons to remove the body from the hotel as soon as possible. The anterior portion of the parietes of the chest was removed in the usual manner. The lungs presented a natural appearance; there was no emphysema. On opening the pericardium the right ventricle and pulmonary artery appeared more prominent than usual, and were elastic on pressure. The pericardium was now filled with water, and the right auricle punctured under water with a sharp-pointed bistoury; no air or blood escaped. The right ventricle was now punctured in the same manner, when a large quantity of air bubbled up through the water. There was no air in the left cavities of the heart. The quantity of air was not measured. On opening the heart, the right auricle was found to contain a clot of blood; the right ventricle, pulmonary arteries, left auricle and ventricle were entirely empty; the venæ cavæ were filled with blood, but the pulmonary veins were comparatively empty.

REMARKS.

Bichat was of opinion that death, in consequence of entrance of air into the heart, was caused by the paralyzing effects of the contact of air on the brain. Lysteur and Magendie believed that death was produced by the forcible and permanent dilatation of the heart. M. Leroy d'Etiolles, wrote a memoir to prove that death from this accident is caused by asphyxia from emphysema of the lungs. M. Bouillaud, by whom the report of the commission appointed by the Royal Academy of Medicine at Paris, to report on M. Amussat's memoir, was drawn up, directs attention to the following causes of death:

"1st. The enormous distention of the right cavities of the heart, inducing an irregularity or even a complete cessation of its movements.

"2d. The presence of air in the pulmonary artery and its branches, causing an embarrassment of the pulmonary circulation, and perhaps also a contraction of the aerial cells.

"3d. Compression of the brain from the air being occasionally admitted into the cerebral vessels."

I regret that I have not the memoirs of M. Amussat, or the report of the commission above referred to, at hand, and that I can only consult reviews. From these I find that on dissection, both in the inferior animals and in man, air in variable quantities was found in the right cavities of the heart and in the pulmonary arteries; sometimes alone, at others mixed with blood, and that the cerebral and other vessels sometimes contained blood mixed with bubbles of air. If emphysema existed in any of the cases, it is not mentioned in the reviews which I have referred to. (Vide Med. Chirurg. Review, April & July, 1833, and July & October, 1838.)

It appears to me that death in this case was caused by the sudden and complete arrest of the circulation. It will be seen by reference to the autopsy, that the lungs were not emphysematous, that their appearance was natural, that the pulmonary artery was distended with air, which escaped when the right ventricle was opened. It will also be observed that the left cavities of the heart were empty. If the air after reaching the heart, had been propelled by the contraction of the ventricle, it must have followed the course of the circulation, in which case air (probably mixed with blood) would have been found in the pulmonary veins and left cavities of the heart, or, as has been asserted, it would burst the pulmonary capillaries, and thus form emphysema; if neither of these results should be produced, it is evident that the air must be arrested either in the pulmonary capillaries or in the pulmonary arteries before reaching them. In this case I presume the air was arrested by the contraction of the small pulmonary arteries, (a result favored in this case by the almost instantaneous cessation of the ventricular contractions,) for the following reasons:

1st. There was no emphysema.

2d. The lungs were not filled out as they would have been if the capillaries had been distended with air.

3d. The air remained in the right ventricle and pulmonary artery which would not have been the case if the capillaries received the air, unless the quantity was very great.

It is probable that death from the entrance of air into the veins, is sudden in proportion to the quantity received; that when the quantity is great death is produced by the instantaneous arrest of the circulation, and when the quantity is small we would have great disturbance of the circulatory and nervous system, the air would become entangled with the blood, necessarily altering its properties, and be thus carried to all parts of the body, producing its fatal effects either from the disturbance which it would produce as a foreign body, or as has been supposed, its tine. This structure is best seen by examining a section by reflected light. The lobules also form slight elevations on the surface, when the cyst, which compresses and flattens them, is removed.

In the second stage, or that in which the resemblance to cerebral substance is most complete, the internal structure of the tumors becomes more homogeneous, their lobules being no longer discernible.

They are now, however, more distinctly divided into larger lobes, by an extremely fine cellular tissue, which not only invests the surface under the cysts, but penetrates into their substance ; and like the pia mater, forms the web in which ramify a great number of blood-vessels. These are much more developed in this, than in the preceding stage, and minutely subdivided in the encephaloid substance they give it a pink tinge in some parts. Their coats, being very thin in proportion to their diameter, they are not only apt to become congested and form coarse straggling ramifications, but towards the close of this stage, they burst and form extravasations. In parts where there is not yet much vascularity, the color, even in the second stage, is sometimes nearly as white as milk. The third stage commences when the matter has acquired the consistence of pap, or of very humid brain softened by incipient putrefaction. It does not soften much beyond these degrees, nor does it ever, according to Laennec, undergo absorption or elimination, so as to leave a cavern. Laennec found encephaloid tumors only in the lungs, liver, and the cellular tissue of the mediastinum.

II. *Encephaloid in masses without cysts.*—This form is more common and is found in every part of the body, but more especially wherever there is much lax cellular tissue. It forms masses of various sizes, from that of a mustard seed to a fœtal head, and of an irregular roundish shape. Its internal structure and other characters are identical with those of the preceding variety.

III. *Encephaloid infiltrated into the tissue of organs.*—Here the boundaries of the mass are not abruptly circumscribed, but blended, and the disease is less advanced at the margins than in the centre. Its aspect is very diversified, from its being combined in different proportions with the various organic tissues in which it is developed. This form passes through the same stages as the two preceding—(*Hope.*) Such are the three forms of encephaloid as described by Laennec and Hope, but they may undergo farther changes from the extravasation of blood. This may be so abundant during the stage of softening, as to pervade large portions of the whole of the mass, and mixing with the cerebriform pulp, give the reddish black color and general aspect of a clot of pure blood. The extravasated blood soon undergoes decomposition ; the fibrin concretes, and retaining the coloring matter, combines with the encephaloid, while the serum is generally absorbed. Sometimes the mass consists partly of pure medullary matter like brain, and partly of a mixture of this in some places with black coagula, and in others with concrete brownish fibrin in thick shaggy strata. When combined in the latter way, the matter loses all resemblance to brain, being of a deep red, brown, or blackish color, and of a consistence allied to that of dryish friable paste. Hence it might be mistaken for a morbid product of a different species, did not some portions of the tumor, remaining exempt from extravasation, indicate its real nature. In the case above detailed, scirrhus, encephaloid, and melanosis, appear to have been combined, as in some instances mentioned by

Dr. Stokes, but the amount of scirrhous infiltration was much greater than in any case that has come to our knowledge. In this respect, we believe it to be *unique.* The morbid deposit was evidently of that variety of scirrhus, denominated by *Recamier* and other pathologists, *chondroid. Vogel* states that the *fibrous* tissue is never so prominent an ingredient as the cancer cells: that in some cases it appears to be altogether absent; but that more frequently, it occurs in a subordinate degree, forming a stroma in which the cancer-cells lie. When the fibres predominate, as in the above case, encephaloid merges into *fibrous cancer*, and hence we sometimes observe that while one portion of the mass resembles encephaloid, another more closely approximates to fibrous cancer; and black granular pigment not unfrequently, as in this instance, enters into its composition, forming *melanotic cancer*. The microscope is henceforth to be an important aid in resolving the true character of *morbid products;* for example, there are, according to *Vogel*, certain forms of cancer-cells which are characteristic of encephaloid, as parent cells with young cells in their interior, cells with numerous cyto-blasts, and the irregular caudate and ramifying cells.

With respect to the diagnosis of the case above given, it was certainly difficult, and Dr. Gibson deserves great credit for his skill and acumen. In the early stage of carcinoma of the lung, we do not believe it possible to detect it, or distinguish it from some other forms of pulmonary disease; but after it has progressed to a certain point, much of the difficulty is removed. In simple cancerous degeneration of the lung, the principal signs, doubtless are, the gradual diminution of the vesicular murmur without râle, its ultimate extinction, and the signs of perfect solidification. Indeed, as Dr. Stokes has observed, the evidences of perfect solidification are better found in this disease than in any other pulmonary affection. In the present case, there was little or no pain; and yet this is laid down by Stokes, and, indeed, all writers on the disease, as very characteristic.* A varicose state of the veins in the neck, chest and abdomen, œdema of one extremity; rapid formation of external tumors of a cancerous character; expectoration similar in appearance to currant jelly; and resistance of symptoms to ordinary treatment, generally attend this malignant form of pulmonary disease. It is to be recollected that, although it has no physical signs peculiar to it, yet that their combinations and modes of succession are not seen in any other affection of the lung

Besides the physical signs already mentioned, there will be found in nearly all cases of cancerous infiltration in the lungs, *dyspnœa, cough, dysphagia, stridor, and weakness of voice*, and pain, which is generally felt at the centre of the sternum, and is the most constant of all the attendant phenomena. The cause of the pain may be inflammation of the pleura, as suggested by Walshe, but in many cases there can be no doubt it is purely *neuralgic*. In the latter stages of the disease, much confidence is to be placed upon the shining, glossy appearance of the skin, and the increased expansion of one side of the chest. The absence of cough and pain were remarkable phenomena in the case above detailed. The extension of the fibrous tissue to the pericardium, the muscles of the chest, and the bones, is a phenomenon hitherto unnoticed so far as we are aware. (See *Vogel* and *Hope's Pathological Anatomy;* the cases related by *Morgagni*, *Bayle*, *Laennec*, and *Andral;* *Stokes*, ("*Diseases of the Chest;*") *Carswel*, ("*Elementary Forms of Disease*"); *Hope*, ("*Path. Anat.*"); *Gross*, ("*Path. Anat.*,") and *Cruveilheir*.—(Ed. *N. Y. Jour. Med.*)

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* There is but one case on record, we believe, of this disease unattended with pain. —(See *Walshe on Cancer*, p. 349. Eng. Ed.)

Art. XII.—*An Address to the Lyceum of Salisbury, Conn.* By Luther Ticknor, M. D., late President of the Connecticut State Medical Society.

[We promised some time ago to present to our readers, occasionally, some of the writings of the late Dr. Ticknor, which have been placed in our hands. The following remarks, like those published in a former No., may be regarded as impromptu, being thrown off in haste, and without time for due preparation. Such as they are, they serve to show the character of the author's mind.—(Ed.)]

I propose to contemplate Man, as an organized, living, moving being; endowed with mind, capable of reasoning and understanding his relation to scenes and objects around him; and appreciating their influence upon him. Man enters upon life, as you all know, the most helpless of all animals, with fewer instincts than any of the brutes, but one or two at most, to direct him; instinctively taught to obtain nourishment, makes out his catalogue of intuitions, unless we admit another, as I think we ought, namely, the power of discriminating those persons of a kind disposition, who are *spontaneously fond* of helpless infancy. This is lost without a vestige remaining, after a short acquaintance with surrounding objects, when reason takes its place. In his progress onward to maturity, we observe him making slower advances, in proportion to the whole duration of his existence, than any other animal, not arriving at full maturity till twenty-eight; and, unlike any other animal with which we are acquainted, beginning to decline at forty-two, leaving only the short period of fourteen years out of seventy for active, efficient, manly pursuits. Unlike other animals, a long period elapses, after he is furnished with teeth, before his hands or his wits can minister to his wants. A few individuals have been discovered who have sustained a solitary existence for a few years beyond the period of childhood, without advancing to an equality with the brutes in self-preservation. From his birth to his grave, man is subject to disease in some form, more or less severe, maintaining perpetual and unavailing warfare with the surrounding elements, and spends the sum total of his existence in mere adventure, experiment, and inventing expedients for acquiring superiority over his fellows. This view of man would suggest, naturally enough, when compared with other creatures, with which we are conversant, a high degree of probability, if not certainty, that some mishap, catastrophe, or revolution had come over him; perverting the laws of nature, diverting them from their usual course or greatly modifying their effects; and revelation informs us what catastrophe *has* befallen him; that it was of a moral character, and involved physical consequences the most apalling and distressing, and for the most part, absolutely unavoidable. I maintain, that if the physical condition of man be compared with the condition of other *animals*, he would seem to have been the subject of just such a *degrading change* as the sacred Scriptures declare to have passed upon him, irrespective of moral degradation, which I shall take no pains, just now, to bring into notice. We find man essentially the same in his anatomical structure, physiological character, and in disease, pathologically the same ; and the same too in his appetites and passions. In infancy, youth, manhood, and old age the same ; though differing in color in all supposable degrees, from the jet black of the African race, to the white hand, rosy-cheeked Caucasian ; and though the two extremes present some striking discrepancies of color and personal configuration, yet in all material points, upon which naturalists depend to identify a species, they are the same, and may lay claim to a common parentage upon philosophical principles alone.

Some of those points upon which naturalists rely, in referring animals to their respective species, though differing in color, size, and habits, are, the number and shape of the teeth, kind of food, number of bones in the spine, feet, etc., mode and means of defence and offence, number of progeny at a birth, and others which the speaker will not mention on this occasion. Leaving divine authority out of the account, and relying solely on physical characteristics, there remains, in the absence of proof. a peradventure only, that the different races of men have any other than a common parentage.

The first influences affecting the physical condition of the being under consideration, are those arising from food and the surrounding atmosphere. The latter we shall consider first. Respiration, or the reception of atmospheric air into the lungs, one of whose principles is received into the blood, and makes a part thereof, is essential to the life of every creature upon the earth, and upon the purity of this article depends much of the health of the human family. Whether owing to our ultra-civilization, physiológical refinements, or mistaken taste, or to some other cause, it matters not, if, as I believe, it be true, that the condition of infancy and childhood is altogether too artificial in regard to the contact of air. Can any mortal assign a reason for half-smothering a child in shawls and blankets, to exclude the free, pure, unadulterated air of heaven ? The impurity of air once, or more than once respired, is not acknowledged by the senses, but is *felt* by the lungs and brain. If such impurities possess visible qualities, we should often, I fancy, be frightened from crowded rooms and close sleeping apartments. From the first to the last inspiration, a pure atmosphere is more essential to health of body and mind than you may suppose. A slight diminution of oxygen in the air, such as would result from the presence of half a dozen persons in the room, is distressingly obvious to an asthmatic, or others who have suffered a destruction of some portion of the lungs. Perhaps there is nothing more true, and perhaps nothing less observed, in relation to this subject, than this, namely, that the high excitement, occasionally manifesting itself in fierce, obscure language, ending in personal injury and homicide ; involving consequences most disastrous to individuals, families, and communities, is frequently more the result of physical than moral causes. This may be *too strong* an assertion ; take another,—the moral causes would not often show such results, without the co-operation of the physical—I oxygen might unite with the carbon of the blood, and prove fatal as a poison by the production of carbonic acid gas.

Seven cases of death from entrance of air into the veins, with the appearances on dissection, have been recorded. This makes the eighth, and is, I believe, the first in your city Dr. Mott and Dr. Stevens have both had the accident occur, but death did not result. The case of the French lady, referred to by Dr. Mott, in his edition of Velpeau, was the first fatal case in New York, but the post mortem appearances are not recorded in the note to Velpeau, and if published they have not met my eye.

Art. IX.—*Case of Traumatic Tetanus.* By D. E. Bishop, M.D., of Ithaca, N. Y. (Communicated in a letter to the Editor.)

Dear Sir,—Having witnessed a case of Traumatic Tetanus, in company with Drs. Beals and Bulkly, of your city, some two years since, and having both before and since then experienced the powerfully *sedative* effects of large doses of quinine, (not accompanied with the same amount of prostration as tobacco and medicines of that class,) induced me, should an occasion offer, to give it a trial in that disease. I enclose herewith a case which terminated favorably under that treatment, in August, 1845, at a small town in Indiana on the Ohio River, which I take from my note-book at the time.

August 10th, 1845. Called to see Joseph P., blacksmith, aged 32. July 22d, ran a rusty nail into hollow of foot, wounding internal plantar collateral nerve of great toe. Wound progressed very unfavorably. On evening of 10th found him with symptoms of confirmed tetanus, viz. opisthotonos, paroxysms occurring every 3 or 4 minutes, pain agonizing, perspiration very profuse, difficult deglutition, pulse 84, can separate jaw half an inch, respiration hurried. I incised the wound, and applied actual cautery. Ordered

℞. Calomel, Ext. col. comp., āā. gr. v. Ol. croton, ♏j.
Ft. pill. ij. st. sumend.
℞. Sulph. quinine, gr. xv. Sulph. morph. ¾ gr. Syr. simp. q. s.
To be taken some two hours after the pills.
To rub the following liniment along whole length of spine:
Sulph. acid, 1 oz., Ol. oliv. 2 oz.

Morning. Evacuations had been copious, secretions very much depraved, quinine and morphine had effect of lengthening the interval between the spasms in the course of a few hours to 5 minutes, pulse 75, pain much diminished, distress at pit of stomach quite severe, which might have been aggravated by quinine, as is sometimes the case. Has some desire for food, to take strong beef tea with brandy during the day. Without going further into details, these medicines had a decided effect upon the disease from the beginning. The same treatment was continued for five days, with occasional variation as it regards time and dose as circumstances seemed to require; kept up irritation to spine. Sixth day. Owing to a suspension of the quin. and morph. for 10 hours, all the symptoms increased rapidly; they were again given in as large doses as at first, with the same happy effect, the wound healed kindly and rapidly, and the eleventh day from the time I first saw him he was very much better in every respect, jaws opened all the way, countenance bright and cheerful, pulse natural, not more than 4 spasms during 24 hours, and those very slight. Continued quinine and morphine, 4 gr. and $\frac{1}{4}$ gr. every 6 hours, used liniment freely, cathartic occasionally, porter, port wine, beef tea and arrow root. Twentieth day. Is quite well except very much debilitated, has continued well without return of spasms.

The only peculiarity in the treatment of the case is the use of quinine as a sedative, and the irritation of the spine, which seems desirable in any affection of the nerves of motion.

Art. X.—*Efficacy of Ox Gall in removing impacted Fæces.* By Edward Vanderpool, M.D., of New-York.

I was requested to see W. J. B., aged 40 years, of full habit, who was suffering from pain and great distress in the right iliac region, preventing rest and sleep, and causing constant moaning. He had been confined to the bed a fortnight with these symptoms, during which time he had been treated antiphlogistically for peritoneal inflammation; calomel cathartics and castor oil had been repeatedly given, producing only a very slight fæcal evacuation each day; cal. and ipecac., and cal. and Dover's powder had been continued in small doses; his mouth had been touched for more than a week; leeches had been repeatedly applied, and a blister at this time was vesicating the part. This afternoon mucus appeared with the discharge, unaccompanied by tenesmus, skin soft and clammy, tongue pale and moist, pulse 80 and soft, natural rotundity and softness of the abdomen, except the right iliac region, which was preternaturally full. A hardness was here discoverable as of a tumour lying deep in the abdomen, occupying the seat of the cœcum and ascending colon, which was very painful upon pressure. Upon inquiry as to his previous health, he said that for the last two and a half or three years he had been subject to frequent colicky pains, for which he would every week or two take a cathartic dose of calomel at night, and follow it with salts in the morning. A small motion would be the only result, with the invariable feeling of not being relieved. Diagnosis, distended cœcum and ascending to the transverse colon, with incipient ulceration of the mucous membrane at this part.

℞. Fel. bov. inspissat. gr. iv. ft. in pil. No. 1.

Give two pills three times a day, and enemeta of diluted beef's gall to the amount of two quarts night and morning; broth and farinaceous drinks. The first enema extended to the part affected and produced a quantity of scybalous fæcal matter, such as he had not been accustomed to see, with some mucus. Some alleviation of his distressed feelings followed this evacuation. The enema was repeated the next morning and evening with the effect of an increased quantity of old fæcal matter and less pain afterward in the iliac region. Considerable exhaustion following the morning enema, it was thought better to omit it in future, and give two pills four times a day at regular intervals, and use the injection at bed time. This course was pursued for ten or twelve days, resulting with a voluntary fæcal evacuation in the morning, which had the appearance of long impaction, and a quantity of the same in the evening, believed by the patient to have been by him two years. The abdominal distress abated as this old fæcal matter passed off, and the mucus daily lessened in quantity. He convalesced steadily, without any other medicine, and was soon discharged cured.

Art. XI.—*Case of Encephaloid Tumor in the Lungs.* Communicated in a letter from C. K. Thompson, M. D., of Wellsboro, Pa., dated August 11th, 1847. (With remarks by the Editor.)

Patient, a laboring man; some time during the fall of 1842, he hurt his side by lifting, which swelled some, and was lame four or five months, and got well, as he supposed. In the summer of 1845, while at work in the harvest field (cradling), he felt a sudden "giving way" in his side, followed by shortness of breath and faintness. The patient always dated his ill health from that time. Said he had never been well since. His wife says his health was not good for some time previous. He continued to labor on until some time in the winter of 1845–6, when he accidentally met Dr. Gibson, (who was then my preceptor,) and wished the Dr. to tell what ailed his side. The symptoms then discovered (without percussion and auscultation) were, a *peculiar wheezing, dry cough; an enlarged gland on the left side of the neck just above the clavicle*, about the size of a hen's egg, with a puffy swelling extending two or three inches around it.

Two or three months afterwards the Dr. examined him again, and found dulness on percussion over a triangular portion of the left lung, the base of the triangle corresponding to the lower edge of the clavicle, and the apex being just below the left mamma; no vesicular murmur in affected portion of the lung; bronchial murmur loud and sibilant; puffy swelling of integument covering left side, which did not fret from pressure; a shining or glossy appearance of skin; skin purple in spots—rest of natural color; puerile respiration of right lung.

The next examination which I shall notice was in April.—Symptoms then present.—Increase in extent of dulness; less bronchial murmur; veins in course of epigastric artery enlarged; severe cough; no expectoration; several glands about the neck enlarged.—July, 1846. Examination. Symptoms. Dulness increased in extent; no cough; no bronchial murmur in affected portion; no pain; (and, by the way, patient suffered but very little pain during the whole course of his disease); pulse 100; other symptoms same as before.

Sept 1846. Complete dulness over whole extent of left lung, with total want of murmur; left side of chest larger by measurement than the right, and no expansion in respiration; axillary veins enlarged; axillary glands enlarged and tender; appetite good; no cough; face bloated; pulse, 110; bowels regular, and have been most of the time; breathing a little short.

Patient was not examined again until the last week in December, (1846); one week previous to his death. At this time there was complete dulness of left side and past median line to the right; no murmur; no expansion of left side in respiration; left mammary region projected forwards more than natural and hard, presenting a feel as if the ribs were firmly fixed in their places; axillary and cervical glands much enlarged, hard and irregular; breathing difficult, and more so when in the recumbent posture; cough with bloody expectoration; pulse 130.

Patient died on first January, 1847, at the age of 27. Post mortem appearances as given by Dr. Gibson, who examined him. "The whole of the left lung, and a small portion of the right, were converted into a fibrous or fibro-cartilaginous mass, and also the pericardium, and that was firmly attached to the heart. In front, this fibrous texture extended nearly to the skin, i. e. muscle entirely and bone to a degree, were converted into the texture and consistence of the tumor. On slicing the tumor, in the centre was found a large mass of medullary or brain-like substance, with firm fibrous bands running through it, and scattered through the tumor in different places were spots of this medullary substance, and in one place was a portion melanotic, or nearly black in color.

In justice to my friend and former instructor, Dr. Gibson, I must say that he was the only one, among several physicians who examined the patient, who had any correct notions in regard to the disease. One called it *scrofula*, one *thickening of the pleura*, etc. Dr. G.'s diagnosis after the first or second thorough examination of patient was—"Some malignant disease of the lung, probably scirrhus, perhaps encephaloid." This patient was subjected to various kinds of treatment. He consulted several physicians, and tried various remedies. The principal treatment, however, consisted in *Hydriodate of potassa* and *Syrup of sarsaparilla* internally, and ointment of *Iodide mercury* externally to enlarged glands, and blisters to chest in early part of disease. Dr. Gibson's prescription was—nothing; as nothing would do any good.

REMARKS.

The above case, though more briefly reported than we could wish, is an extremely interesting one on many accounts. In the first place it is a very rare form of disease, especially in the United States, and Bayle states that he met with it only three times in 900 subjects in the hospitals of Paris.

Laennec has described *encephaloid of the lungs* (Traite ii. p. 52,) under three different forms. 1. *Encysted.* 2. *In irregular masses without cysts.* 3. *Infiltrated into the tissue of organs.* Each form presents three stages—that of recent formation; that of maturity, when it most resembles cerebral matter; and that of softening.

In encysted cephaloid the size of the masses varies from that of a pea, or less, to that of a billiard ball. The cysts consist of a fine flexible membrane, scarcely half a line thick and of the semi-transparent grayish white appearance of cartilage. They adhere so slightly that the masses may with facility be turned out from them. In the first stage exhibited in the smaller masses, the encephaloid matter has considerable firmness, like concrete lard. Its color externally is of yellowish white, or pearl gray, without any intermixture of pink. It is subdivided internally into minute lobules by scarcely-visible cellular lines, sometimes slightly vascular, which are disposed principally in a radiating direction from the centre, being somewhat tortuous or serpenthe ribs on the left side to the mesial line in one direction, descending to the ilium, (crest), occupying the upper portion of the lumbar space.

Treatment. I had recourse to venesection, both local and general, cups applied to the left hypochondrium and lumbar space, with partial abatement of the foregoing symptoms. As the indication, at this juncture, for applying a blister was decided, vesication was resorted to, over the whole space occupied by the tumor, followed by the ordinary purgatives. The blister drew well, and the purgative had the desired effect, the pain and fever being diminished. On the following day I exhibited the following mixture of Twining:* ℞ Pulv. Jalap, Rhei, Columbæ, Zingerberis, Bitart. potassæ. āā ℈iss., Ferri sulphas, grs. x. Sennæ tincturæ, ʒ ij., Aquæ menthæ sativæ, ℥ v.

Alternating with this mixture, after an interval of five days, I prescribed for him pills of Sulphas ferri, x., Aloes soctari, ℈iss., Sulphas quinæ.

April 22, the above were discontinued; the patient now complains of a dull heavy pain, with a peculiar burning sensation in the region of the spleen; striking as far as the spine and clavicle; attended with a fulness and throbbing, and an increase of the tumor.† Shivering came on at intervals, terminating in slight perspiration over the most œdematous portion. I applied warm fomentations of hops, contained in a small woolen bag, wrung out in warm water, followed with a poultice of linseed meal, copiously sprinkled over with mustard, without any perceivable change in the character of the enlargement. The patient is much debilitated, the pulse is frequent, unequal, small, and sharp, with flushing of the face; the skin cold and clammy, with perspiration towards evening; the ammoniacal plaster was then applied without any apparent benefit, towards the evacution of the pus externally. Caustic, (the *potassa fusa*,) was then had recourse to. I used it in the solid form well pointed, not in paste, as is sometimes used. This application had the most happy and desired effect. On the following day the purulent fluid found an outlet externally, (immediately over the splenic region), and large quantities of a dark puriform discharge came away through the opening; it was then dressed with common meal poultice. The patient at this time is much emaciated, from large quantities of pus being added to the circulation, producing hectic fever, accompanied with diarrhœa. He was put under the use of nourishing food, wine, tonics, etc., which were used sparingly for a short time, and afterwards gradually increased. The diarrhœa was stopped with opium, astringents, and absorbents. For the inordinate perspiration I used the *Acidum sulphuricum aromaticum*, with the happiest effect. A tent was then introduced through the opening in the abdominal wall, in order to keep up the discharge from the spleen.

April 29. Discharge has stopped; patient takes exercise in open air; appetite good; food exhibited sparingly; the left hypochondrium is much excavated as it were, from the large quantities of pus evacuated from the spleen.

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* Stokes' Lectures, American edition, vol. I., p. 562.

† "In unyielding textures," says Mr. Liston, (Elements of Surgery, American edition), "the increase of swelling by the formation of purulent matter, is often attended by an aggravation of the symptoms, and with an increase of danger to the structure affected."

Art. XIV.—*Case of Paralysis. Extracted from Prescription Book U. States Ship Ohio.* B. Ticknor, M. D., Surgeon.

Doctor V. W., admitted on sick list Dec. 8, 1838, second day out from N. York. Had complained the morning of the day previous of a very severe and unusual pain in head, accompanied by sickness of stomach. While attempting to vomit fell into a state of coma; pulse became small, but continued natural in frequency, respiration natural. A large sinapism was immediately applied to epigastrium, and one to each of the extremities. No relief being obtained, the temples were scarified. A vein was now opened in the arm and five or six ounces blood taken. Two hours after this, the pulse became more full, with some tension, face flushed; ℥ xvj. of blood were then taken, and eight leeches applied to temples, which drew well; cold applications to head. The pulse was now somewhat reduced, otherwise the symptoms remained the same. An enema of turpentine and castor oil, in the usual quantities, was administered, but without effect on his bowels. An effort to vomit on his part being made, Sulph. zinc., in doses of gr. x. to the extent of gr. xxx., was given, but without effect. Cold applications to head were still kept up, and sinapisms to soles of feet.

Dec. 8th. This morning there seems to be a slight return of consciousness; has taken part of a cup of coffee and seemed somewhat relieved.

Dec. 9th. Consciousness gradually returning. Pulse this morning natural; has paralysis of right side, loss of sensation and motion. An enema of turpentine was given yesterday, but without effect. Has taken this morning a cup of coffee, and signifies that he relishes it; appears to understand all that is said, but cannot articulate. Continue cold to head; light food occasionally.

Dec. 10th. Very gradually improving, but still unable to articulate. Had yesterday profuse but involuntary discharge from bowels; pulse natural. Continue cold applications to head.

Dec. 11th. Last evening pulse rather more full than had been for two days; countenance more flushed; eight leeches applied to temples, which drew well; had in course of night free evacuations from bowels; pulse natural in frequency and force; countenance natural; has slight pain in head; consciousness same as yesterday.

Dec. 12th. Pulse being rather full and tense yesterday in afternoon, ℥ xviij. blood were taken from arm; pulse has since been natural; some increase of consciousness and motion. A small blister was applied yesterday behind each ear; dress blistered surface with mixt. of Basilic. and Emplas. Vesicat.

Dec. 13th. Pulse continues natural; considerable coma; when asked if he has pain in head, signifies that he has; takes drink and light food readily; is sensible when he micturates; no evacuation from bowels in last twenty-four hours; twelve leeches to temples this morning; blisters kept discharging; cold applications to head. Toast-water acidulated with tamarinds, for drink.

Dec. 14th. Leeches drew well; has less coma; pulse perfectly natural, tongue clean; takes light nourishment with relish.

Dec. 15th. Was removed from orlop to upper gun-deck yesterday; begins to make a gurgling noise in throat, but not able to articulate—feels better.

Dec. 16th. Bowels freely moved yesterday by enema; continues to improve.

Dec. 17th. Slowly improving.

Dec. 19th. Continues to improve slowly; took last night R. Calomel, gr. x., Ext. colocynth. gr. iv. for dose.

Dec. 20th. Still improving slowly; has had some evacuation from bowels; begins to articulate, can pronounce a few monosyllables.

Dec. 21st. Had three evacuations from bowels yesterday; continues improving.

Dec. 22d. Still improving; fed himself this morning for the first time; has been able to sit up in chair.

Jan. 1st, 1839. Has continued gradually improving; can now articulate five or six words very distinctly; sight of right eye, hearing of right ear, and sensation of right side, entirely gone; bowels freely evacuated yesterday by means of cathartic and enema.

Jan. 2d. Had a febrile attack last night; pulse 120; head very hot and dry, restlessness, thirst; eight leeches applied to temples, cold to head; took gr. v. of the following: ℞. Pulv. Dover., ℈j., Pul. antimon., Camphor, āā gr. x., Hydr. prot. chlor., gr. iv. M. Had two evacuations from bowels in course of night; febrile symptoms have abated this morning; less heat of head, but still some pain.

Jan. 3d. Has now general diaphoresis; bowels continue loose; yellowish fur on back part tongue; head free from pain and cool. Took at nine o'clock last night Mist. efferves. cum. Tinct. opii, gtt. xv.; at half past three o'clock this morning another dose of Mist. efferves. with Tinct. opii, gtt. xxv.; pulse 104; feels considerably better.

Jan. 4th. Has had four or five evacuations from bowels in last 24 hours. Took last evening Tinct. opii, gtt. xxv.; rested well during night, free from fever and feels better.

Jan. 5th. Took at 6 o'clock last evening ℞. Tinct. kino, ʒj., Tinct. opii, gtt. xx.; had no evacuation till this morning; rested well; appetite good.

Jan. 6th. Removed to sick-quarters on shore, at Mahon.

From this time forward, a slow but steady amendment took place in the case of Dr. V. W., without the aid of any remedial means, excepting the enforcement of absolute diet, until the 12th April, when he was transported on board the Ohio, with the view of procuring a passage for him in some homeward-bound ship. After being three or four days on board ship, he committed an imprudence in eating, in consequence of which he was attacked with pain in head, pulse became irritable, face flushed, increase of heat about the head; eight leeches were applied to temples, cold to head, which soon afforded relief. He was the next day taken back to hospital at Mahon, where he remained till 11th June. During this time he was kept upon vegetable diet, and was slowly but steadily improving. On the 11th June he was removed on board a merchant vessel, for the purpose of going to the United States. Early the next morning he suffered an attack resembling epilepsy, for which he was bled from the arm and leeched to temples. He very soon recovered so as to be nearly as well as before the attack. This attack was probably caused by imprudence in eating and drinking the day before. He was immediately removed on shore to comfortable quarters, weere he remained during the summer. He had through the summer a repetition of attacks similar to the above, but less severe, at intervals of from seven to ten days. During the first month of his stay on shore he was bled twice and leeched twice to temples, and took occasionally a cathartic. During this period he was still restricted to vegetable diet. From the 12th July up to last day of September, was allowed small quantities animal food, but the attacks which have been described, continued to recur at about the same intervals. The treatment prescribed by Dr. Foltz, during this period, consisted of the internal use of an alcoholic preparation of Nux vom., and the external use to the paralyzed limbs, of a preparation of same article. This treatment produced spasmodic action of muscles of paralyzed limbs, and vertigo, in consequence of which it was discontinued. He was also using at same time an Infus. digital. in doses of ʒj. bis in die. At the commencement of this treatment, a seton was introduced into back of neck, and remained till middle of October. His appetite was bad during summer. On the 2d October he was removed on board the Ohio, for the purpose of being conveyed to Gibraltar, at which time his condition was as follows: inability to articulate more than one word at a time; sight of right eye, hearing of right ear, considerably improved; intellect, so far as can be judged, not materially impaired; is able to raise the paralyzed arm, but is unable to move the fingers or hand; has so much use of lower limb as to be able to walk some with the aid of a staff. Is again restricted to rigid diet.

ART. XV.—*Case of Deficiency of the Stylo-Hyoideus Muscle.* By MOSES GUNN, M.D., of Ann Arbor, Michigan.

THE following are the notes of a dissection, exhibiting an entire deficiency of the stylo-hyoideus, an anomaly which I do not recollect to have seen anywhere mentioned. — Subject—a negress, apparently about 16 years of age, and well formed. The integument, and external layer of superficial fascia were dissected up, and exposed a tolerably developed platisma myoid. Removing this, and the sterno-cleido-mastoid with usual care, I commenced the dissection of the supra hyoid region. The anterior belly of the digrastic was dissected out to the point where its tendon passes into the loop of the fascia which connects it to the hyoid bone. In dissecting out its posterior belly, it was observed to be beautifully developed, though not much exceeding its usual size, and not to pierce muscular fibres, as it usually does those of the stylo-hyoid. The dissection was continued by laying open the loop of fascia which invests its tendon, and turning back the muscle to its origin. This exposed, not the fibres of the stylo-hyoid, but a layer of fascia, removing which, brought to view the stylo-glossus and stylo-pharyngeus in their natural position and ordinarily developed. Adjacent parts were perfectly normal, but not the least trace of the stylo-hyoid could be found. The dissection was repeated upon the opposite side, with additional care, and with the same result.

mean a raised temperature of a very frequently-respired atmosphere. What think you would have been the effect of a fresh north-east wind upon our patriotism, unbroken by boards and shingles, at our late election? Why, our *love of country* would not have come so near personal hatred and personal abuse. I would not offend, but speak I must, and speak I will, on this subject. The enthusiasm, the burning, blustering patriotism, by which our great gatherings are characterized, are, to a great extent, the effects of an atmosphere loaded with carbonic acid and other impurities, rather than a just appreciation of our country's wants, and her claims upon us. This doctrine is true so far as its application to the lower animals can be made. Those of a combative character, when crowded together, become quarrelsome, and destroy each other. I would recommend, therefore, when health of body and mind is the thing desired, that a moderate temperature, and absolutely pure state of the air should be maintained; such a state as is not met with in very close rooms, especially stove rooms, and more especially still, close stoves; cheap and fashionable to be sure, but imperfectly ventilated, and if used as sitting rooms, the air soon becomes loaded with effluvia from the lungs and skin, to a prodigious extent.

The influence of light is obviously acknowledged by the physical condition of man, and with him the whole animal creation and vegetable world. What condition, precisely, a man would be in, if for a length of time, light were wholly excluded, and other influences remaining the same, it would be difficult to say, but from what is noticed in the character of plants excluded from light, and the subduing influence of darkness upon the most ferocious animals, it is fair to infer the high importance of light to the moral, intellectual, and physical character of man. That it is a stimulus of a peculiar kind, irrespective of its action on the organ of vision, is certain from the foregoing facts.

The well-known importance of food in affecting the physical condition of man, has given rise, within a few years, to a pervading solicitude, manifested by the fabrication and adoption of a variety of theories, possessing various degress of merit, but calculated chiefly to awaken strong apprehensions lest this or that quantity or quality of food should engender this or that disease, or that *animal* food is calculated to prevent a due development of intellect or defeat its happy and successful operations. That there has been a vast deal of doubtful theorizing and dangerous deductions, no one acquainted with this matter will doubt. The absurdities of Mr. Graham's system have not been equalled by any accumulation of hypotheses, given to the public on the subject of dietetics. He succeeded in convincing many respectable persons, that animal food was exceedingly inimical to health and longevity; and that, on the other hand, bran-bread and roast potatoes, afforded complete immunity from disease and death short of old age. One would almost infer from his doctrines, that the cubic measure of intellect, might almost be inferred from the quantity of bran-bread per diem any one might consume; and he proved to the satisfaction of some that the race of man, for 6000 years have added to this gloomy catalogue of blunders, that of mistaking altogether their proper food, and been, all this time, like a pack of boobies, sickening and dying in stupid ignorance. Now, then, absurd as this may seem, it has been taught, believed, and acted upon; and still is held in high estimation by many who might and should know better.

The authority to use animal food given to Noah, the fact that Abraham made a feast of it for angels, and the fact, too, that Isaac required venison before he blessed Jacob, together with the positive injunction to use it in the worship of the tabernacle, it would seem ought to settle the question of lawfulness and appropriateness, with any person of common sense or piety.

On this subject of diet, a few common-sense remarks make up about all that persons in health need to know, and sick ones must learn by experience or be instructed by their physicians.

Facts like the following are now pretty well established, that people in high northern latitudes prefer to live almost exclusively on animal food, and more particularly the fat of animals, while those in tropical regions subsist chiefly on vegetables and fruit, leaving us on middle ground, in the use of about equal proportion of animal and vegetable, which, if experiments and observations are worthy of reliance, is about as it should be.

From the reading and lecturing on dietetics, as well as the pretensions to cure diseases arising from impurities of the blood through chemical changes, it seems the public mind may not be well-informed in these matters. So far as chemistry has been able to disclose the process of digestion and the composition of the various fluids and solid structures of animal bodies, it goes to prove that chemical affinities as such exercise no influence over any process or structure of organized beings, unless it be the earth of bone, (phos. of lime,) and the change effected in the blood by respiration. Life without motion as well as with, is that condition of particles of matter, which resists, for a time at least, the destructive influence of chemical laws. Life without motion is well exemplified, in the seeds of vegetables, which retain their vitality for thousands of years. Take wheat, for instance, which has been known to germinate after lying three thousand years; whereas, decay commences immediately after the atoms are disturbed. Take another example, the egg, for instance, which resists putrefaction a long time, unless disturbed by freezing, or some other cause, when decomposition commences immediately. This is life without motion. Life with motion in its earliest dawn is happily instanced, again, in the egg, which is a fair specimen of beginning existence in viviparous as well as oviparous animals; being the result of stimuli of some kind. The egg placed in a certain temperature, exhibits a dot or point of blood on a small disc or membrane enveloping the yolk. This point, when magnified, is found to be in motion. With some unessential variations, this is the manner in which life commences in all organized beings, from the highest to the lowest. This power or influence in a state of activity, is called vital principle, vital forces, &c., according to the fancy of the author—all meaning the same thing, so far as they are understood.* Do you ask, what it is in its essential character? The speaker *believes* it to be neither more nor less than the handiwork of almighty power, wisdom, and goodness; not merely the operation of a law from which Deity may be said to have retired. This vital principle (for we must give it a name or we cannot talk about it,) presides over the growth of the body, proportions of members and organs; directs the quality and quantity of supplies, to repair the losses of the various structures, of which the body is composed; and to a truly marvellous extent, fortifies and provides against abuses and causes of disease. Hence some writers have supposed a modification of this principle or power, which they have denominated the "sanative or health-sustaining power" of the system. But this is taking more of a physiological view of the subject than I intended.

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* This principle retains the atoms of the various elements of which the body is composed, precisely in that relation and proportion consistent with identity of structure and function; and when the vital principle is withdrawn at death, these atoms seek their fellows in obedience to chemical laws. M. Liebig has done much more for agriculture than physiology.

A few facts more in regard to nutriment. It is now fully settled, that the body or mind cannot be supported long under active labor, and health maintained, upon food destitute of nitrogen or azote, which is a principal component of the muscles, tendons and membranes of animals; in short, it enters largely into the composition of all animal matter, except the fat, which alone, does not minister so much to muscular strength, as furnish materials for supporting the temperature of the body. Hence, as we should suppose, even in our temperate climate, if exposed much to cold in winter, we consume *fat* meat more than in summer; and in higher latitudes, this holds true to greater extent. So again, our builders of railroads and canals, who exercise their muscles violently, prefer beef to pork, almost to a man; the same is true of many of our laborers in forges and furnaces, except where a contrary diet has been long habitual. In addition to these facts, if you observe at all, you will find that *very* active children hand their trenchers for lean meat, and they ought to have it. Do you ask how much? Why, as much as they want, if they can get it. And *girls* too? Yes, girls too, big and little, though it should render them liable to appear *very* healthy, and promote their growth beyond the latest fashions, and exhibit anatomical proportions, at war with the corset and bodice system. The doctrine, that fat meat furnishes the elements for the production and preservation of animal heat, derives support from the fact, that those children, who are half-naked by day and poorly lodged at night, consume with avidity large quantities of fat meat and butter, when they can obtain a supply.

I have made some of these remarks to counteract a common and increasing belief, that childhood and youth should be denied in part or entirely animal food.

I now remark, not because it is more appropriate here than any where else among my desultory observations, but because I happen to think of it, that a full-grown, justly proportioned human being; one who is not stinted in size nor crippled with deformity, is more likely, other things being equal, to exhibit a fully developed mind and a well proportioned character; while those, otherwise conditioned, of both sexes, are more likely, though some have been distinguished for genius, to be disfigured in mental and moral character, and distinguished for eccentricities which have detracted much from their usefulness. I might instance Pope and Byron. The same remark is supposed applicable to those who are very much above medium size.

So you see at once the absolute necessity for animal food, in order to receive the most desirable physical result, namely, a well-developed body and mind; over the preparation and distribution of which, the vital principle, and not chemical laws, preside; and that the choice of the individual, when involving no absurdity, is the best possible guide.

It is probable at least that we use more fat pork, lard and butter, than is either needed or compatible with health of body, or vigor of mind. The Mosaic prohibition of "swine's flesh," was a wise, sanative measure for that climate; and in many eastern countries it is still sparingly used, independent of religious scruples. It is believed that a full diet of pork fosters some of the baser appetites of our fallen nature, and predisposes to skin affections in hot climates, particularly in the east. I think more likely than not, that for us gentiles, a meat and fish diet, leaving out fat pork, would on all accounts, prove a good regulation if once it were established.

Society is now suffering physical inflictions from a source, perhaps least suspected by you, I mean drugging the stomach either to cure an imaginary disease, or prevent a real one. A little smattering of physiology and medicine, which many have picked up. seems to serve no other purpose, than to awaken *fears of disease* and inspire with temerity in regard to remedies; hence we find many resort to empirical remedies to their positive injury, when there has been no necessity for any medication. In relation to this matter, "a little learning" is dangerous. For instance, a man has got a notion somehow or other, that he has a liver, and the liver has some relation to the gall; and from over-eating or some other cause, he feels bad somewhere, as he supposes, in the neighborhood of that organ, therefore he *knows* he has "liver-complaint," or is bilious, but if he has any doubt the first newspaper removes it, and informs him where pills may be had and a cure warranted; so the poor fellow swallows pills and *hopes* for a cure, and when utterly in despair, calls on his physician to know what is good for a bilious stomach, not knowing whether he has too much or too little bile, or how much he should have, any more than he knows how much wood it took to burn Polycarp; and it is an equal chance that his doctor will not know what ails him by this time. We have no more reason to expect perfect health than perfection in morals, or perfect symmetry in anatomical proportions; for neither one nor the other is to be expected; therefore, a resort to empirical remedies or any others, for every trifling indisposition, savors of criminal discontent, if not positive weakness.

ART. XIII.—*Case of Inflammation of the Spleen, terminating in Suppuration.* By J. DANIEL HOLLY, M. D., of Lowndesborough, Ala.

APRIL 10, 1847. I was requested by Mr. C. to visit his son, aged 15 years, who had, previous to this attack, labored under intermittent fever. I found him laboring under excruciating pain in the left hypochondrium, extending as far as the clavicle or shoulder, increased on pressure, with sensation of cold, and partial rigor, considerable nausea, dry cough, more than ordinary symptoms of pyrexia, great weight and fulness in the left hypochondrium, involving the upper portion of the lumbar space, with pain on respiration, slight hematemesis, with accelerated pulse, tumor extending from the origin of the cartilages of

Art. XVI.—*Case of successful Operation for Hæmorrhoids under the Influence of Ether.* By M. Freligh, M.D., of Rhinebeck, N. York.

Dr. Lee, Dear Sir,—Noticing the many articles that have appeared in the various prints, independent of the medical press, concerning the use of the Letheon, somniferent, or sleeping gas, and also your valuable remarks in the July No. of the Medical Journal, concerning its indiscriminate use, causes me, with your permission, to detail the following case, which may not prove altogether uninteresting to a part of your numerous readers. I was called to operate in case of hæmorrhoidal tumors; the patient was a lady 37 years of age, of delicate constitution and cachetic habit, she had suffered by times severely for a period of sixteen years, with the above malady, together with an attending sympathetic dysuria and not unfrequently most distressing strangury, and more recently, rapid impairment of general health. Considering the many obstacles to success, her delicate health, and susceptibility to nervous excitement, I reluctantly consented to operate, when I was also requested to administer the ether, or letheon, which I peremptorily refused to do, but consented that the pure ether might be administered (without the morphine, which some consider as a necessary adjunct,) by a person well qualified to assume the entire responsibility, by previous repeated trials, and a thorough knowledge of its effects. The 13th of June, at eleven, A.M., was the time set for the operation, at which time Dr. Clark, of Lansingburgh, a friend of the patient, administered the ether with the usual apparatus. The patient was then immediately placed in position, and I commenced the operation by transfixing the centre of the first tumor (there being three) by a strong curved needle armed with a double ligature, which was seized with a forcep, and disengaged from the needle, which was then withdrawn.

The ligatures were then drawn firmly around each half of the tumor and it excised, save a small portion in front of the ligatures, the second was removed in substantially the same manner; the third being situated higher in the rectum, required the aid of a needle-holder and forcep, as described and used by Dr. Bushe. The operation lasted from six to eight minutes, during which time the patient appeared to be in a calm sleep, with the exception of one or two motions which evinced pain, or some signs of suffering. After the effect of the ether had fully passed off, which was in a very short time, she had a knowledge of the operation, but none of experiencing pain. The after treatment was conducted upon general principles, the sympathetic iritation of the urinary organs was speedily removed by fomentations to the pubic region, and occasional hip bath; she recovered rapidly and her general health materially improved: it is now between seven and eight weeks since the operation. That the operation was a dangerous one to some extent, and would have been extremely painful under ordinary circumstances, any person at all familiar with the parts, the extreme sensibility and associate relations, cannot entertain a reasonable doubt. Fully appreciating the necessity and practical worth of your remarks in the Journal, and believing as I do, that etherization has not only been unnecessarily, but frequently very injudiciously practised, I am of opinion, notwithstanding, that a great amount of human suffering can be prevented by its judicious administration, a desideratum, in my humble judgment, claiming at least an investigation by members of a humane profession. The shock of the operation and consequent re-action was in this case materially abridged. My object in citing this case is simply to show the effect or result as above detailed, to obtain the opinion of the serious and more able members of the medical profession, as to its practicability in certain cases, and not to hold out the idea that it can be safely administered indiscriminately, or by the inexperienced, with any degree of safety.

Remarks.—We are not wholly opposed to etherization, as we stated in our last No., but we deprecate its too general and indiscriminate use. The above was a very proper case, as it seems to us, for its administration; and our correspondent acted very properly in resorting to it. We would do the same under similar circumstances.

Ed. *N. Y. Journal.*

PART SECOND.

Critical Analysis.

Art. XVII.—*The Chronic Diseases; their Specific Nature and Homœopathic Treatment.* By Dr. Samuel Hahnemann. Translated and edited by C. J. Hempel, M.D. Vols. III. & IV., pp. 328, 378.

To arrive at a correct appreciation of Homœopathy, we must study the character of its founder; for in his mind we find its true type. Hahnemann was not destitute of genius, but he was thoroughly imbued with transcendentalism. He was always devoted to theories and speculations, and had no regard whatever for experience or facts, except as they went to support hypothesis. Hence, he says, that the true physician will be cautious how he suffers himself to become attached to any particular remedies, *merely because he has often employed them with success;* and that he will in like manner, also, be cautious how he suffers himself to be prejudiced against remedies, for the opposite reason, that they sometimes fail to succeed, (*Organon*, p. 271). He had, indeed, no correct idea of what ought to be expected of medical science, or in what it really consists. He saw that it was an uncertain science; but he had no proper conception of the causes of this uncertainty, or the proper mode of correcting it. A believer in the perfectibility of human nature, the tendencies of whose mind were to abstract principles in morals and politics, and to mysticism in religion, he thought that medicine ought to rest on an immutable basis, and have within itself the power of rising to perfection. His early life was considerably occupied in the study of chemistry and the natural sciences, and he seems to have concluded, that we ought to expect the same uniform sequence of cause and effect, the same undeviating uniformity of phenomena in medicine, as in the other branches of physical science. We can readily understand how the mere chemist, who always sees the same actions resulting from bringing in contact certain substances, might at length be led to expect that the same uniform results ought to occur in medicine; and that, if they did not, then to conclude, that *that* was a science "falsely so called." He would be very likely to set to work to find out some universal law, like gravitation; some principle which might bind together all known facts, and serve as a basis on which to build a true system. But all this betrays an ignorance of medicine, and a total want of all correct knowledge of what ought to be expected from it. In the first place, notwithstanding all that has been done, there is great uncertainty in diagnosis—in our knowledge of the character and progress of disease—and it is not to be expected that our *therapia*, or art of cure, will be perfected any faster than our knowledge of these advances.

And then the action of external or internal agents upon the body never can be uniform, owing to the well-known fact, that we are not all constructed exactly alike. As two individuals, exposed to the same causes of disease, as cold, fatigue, etc., will be liable to be attacked by different disorders, so will they be differently affected by the same internal remedies, so that we have, and can have, no confidence approaching that of certainty, that similar treatment will be followed by similar results even in the same disease. The operation of our remedies is modified by constitution, climate, temperament, state of mind, and many other circumstances, which cannot always be accurately appreciated; hence, medicine can never, with man's present organization, attain to Hahnemann's standard, viz., that of a certain science.

Whoever has carefully examined the writings of Hahnemann, will at once perceive, that he constantly violates every rule of philosophical investigation. Instead of pursuing the mode of induction, as laid down by Bacon, he began by inventing the law, *similia similibus curantur*, and then endeavored to find facts to support it. So wedded was he to his theory, that, if opposing facts were brought forward, his only reply would seem to have been, "So much the worse for the facts!" One great source of fallacy in all his reasonings was his *constant mistakes in tracing causation.*

1. In administering medicines to the healthy, for example, he invariably set down all the subsequent phenomena, mental and physical, for days, weeks, and months together, to the article administered. The minutest sensations, even to the faintest moral emotions, were ascribed to the infinitesimal dose of the drug, and no influence was allowed to any other cause whatever.

2. In treating the sick, he always ascribed the recovery to the effect of his medicine; attributing his failures to former allopathic treatment, or to some imaginary cause.

3. He referred the symptoms of disease, also, to some imaginary cause, as *sycosis*, or *itch*, and then assigned to particular articles the power of removing this cause.

4. Hence, he was continually mistaking the nature of diseases, and claiming to have cured maladies which only existed in his own imagination. "*Diseases*," says he, "*are dynamic aberrations, which our spiritual existence undergoes in its mode of feeling and acting—that is to say, immaterial changes in the state of health*, (*Organon*, p. 19).

5. So far from proving his law, "*similia similibus*," to be a *universal fact*, as laid down, Hahnemann admits important exceptions; numerous enough to vitiate it as a general principle, and as a basis on which to erect a new system of medicine. "In urgent and dangerous cases," says he, "or in diseases that have just broken out in persons who were previously in health, such as asphyxia by lightning, suffocation, freezing, drowning, etc., it is proper, in the first instance at least, to re-animate the feeling and irritability by the aid of palliatives, such as slight electric shocks, injections of strong coffee, stimulating odors, warmth,"

etc. Again, he says, "every intelligent physician will *first remove* the *occasional cause;* then the disease usually ceases of itself," (*Organon*). Hahnemann admits, then, that the *homœopathic law* is not a general one, that it does not apply—1, *to cases of syncope,* which are to be treated by *stimulants;* 2, to cases where life seems almost extinguished, where the *ordinary measures* are to be employed to excite re-action; 3, to cases where offending matter exists in the stomach and intestinal canal, which are to be treated by *emetics* and *cathartics;* 4, to cases of habitual constipation which often require *enemata;* 5, to chronic diseases, for Hahnemann observes, "I have found, after 12 years of diligent research, that chronic diseases, treated homœopathically, even in the best manner, re-appeared, after having been frequently *seemingly* cured, and each year with a perceptible increase in their intensity." In all *chronic* diseases, he states that remedies are to be directed, not against symptoms which really exist, but *against the symptoms of one or other of three imaginary diseases,* ITCH, SYCOSIS, and SYPHILIS, which were supposed to have existed at some previous time; all chronic diseases, then, are exceptions to the law *similia similibus!*

6. Hahnemann not only refers phenomena to fictitious principles, instead of facts, and lays down as, of general application, a rule whose exceptions, according to his own showing, are far more numerous than its applications, but he constantly institutes statements and hypotheses for facts, and puts forth his own opinions, without a shadow of evidence, as established truths.

Such are the principal failings of Hahnemann, as a medical philosopher, but there are grave charges against him as a man of high and honorable bearing, to which we should not here allude, did they not serve to throw light upon his career and his system, and the motives which may have influenced him in its promulgation. The origin and progress of homœopathy can best be traced in the mind of him to whom it owes its birth. In his early professional career (1800), it is admitted that he advertised a new salt, the discovery of which he claimed, and which he offered for sale under the name of *alkali pneum,* at the price of one *louis d'or* ($4) per ounce. The Society for the Promotion of Natural Sciences, at Berlin, procured an ounce of it from his agent at Leipzig, which was analyzed by Klaproth, and pronounced to be nothing more than *common borax!* Soon after this, Hahnemann advertised an "*infallible preventive of scarlet fever,*" as he termed it; the price of which was, also, a *louis d'or;* this was a simple solution of the extract of *belladonna!* It has been proved by Professor Joerg, of Leipzig, that many of the quotations from old medical authors, made by Hahnemann, are false and fictitious! These statements, long since made, have never been refuted; it is admitted that his quackish practices chiefly drove him from Germany, to take up his abode in Paris.

It is abundantly evident that Hahnemann had no correct idea of the mode in which nature cures disease. Indeed, he sometimes denies that nature ever cures, without the aid of homœopathic drugs; and yet he thinks her powers are energetic enough to remove the much stronger disease caused by them! Assuming disease to be *spiritual,* he attempted to find an antidote by spiritualizing matter, and as it was a *bad,* not a *good* spirit, his treatment amounted to nothing more nor less than sending one evil spirit into the body to chase out another; for we are not to forget it was an application of the *similia similibus* principle. It is a theory which begins and ends with spirits; it is German mysticism reduced to a system; transcendentalism transferred to medicine! The whole doctrine of homœopathy, as laid down in the Organon, is but a jumble of contradictions and absurdities. The whole doctrine of dynamization of medicines is contradictory in itself; at war with common sense and the laws of nature. At one time, we are cautioned against the use of dynamizations *too low*, lest they should act *with too much power*, and then he shows how power is developed by trituration and shaking. "Formerly," says he, (*Preface to Chronic Diseases, translated by Hempel*, Vol. III. p. 6,) "when I was in the habit of giving a whole drop of the attenuation, mixed with a little water, I found that *ten* shakes developed the medicinal power of a drug to an *excessive degree*, and I, therefore, substituted two shakes in the place of ten," etc. Again (*loc. cit.*), he says, "In cases where great irritability and extreme weakness went hand in hand, and where *smelling* had to be resorted to, I employed, for that purpose, several vials containing globules of a different potency, the patient smelling of the highest potency, and every succeeding day of a lower potency, either with both nostrils or only with one, *according as I desired to produce a stronger or weaker impression.*" The same contradiction appears in the preface to his work on "Chronic Diseases," published in 1828, in which he says, "The power of *small* and *highly-diluted* doses was doubted, their greater fitness for effecting a homœopathic cure, and the higher development of their dynamic action were overlooked, and, despite of the warning trials which enabled me to recommend small doses as the most appropriate for the cure of disease, my faithful assurances and reasonings were disdained, and medical men continued, for years, to jeopardize the lives of their patients by large doses," etc. "What would they have risked, if they had first followed my indications, and had employed small doses! The worst which could have befallen them, was, that *these doses would be of no avail. It was impossible that they should do any harm*"!! (p. 12). Where is potentization here?

The work on chronic diseases, comprising the *materia medica* (pure?) of Hahnemann, is a heterogeneous jumble of crude transcendental imaginings, dignified with the name of *facts;* in which symptoms, observed or fancied in different persons, are intermixed, without distinguishing the dose administered, the order in which the symptoms were manifested; how they were grouped, or succeeded each other, or at what intervals of time they appeared. In short, it is a complete chaos; in which the artificial symptoms said to be produced on the healthy by medicines, are intermixed with those which are said to have been removed by the medicine; both apochryphal in our estimation, and of no more value than the ravings of a madman. We regard Hahnemann as a physician, in the same light that we do Swedenborg as a divine; both were inspired by a species of wild enthusiasm, which enabled them to see things that never existed; and if they did not end their days in a mad-house, it was not because their insanity was doubted, but rather because it was of an inoffensive character, rather calculated to amuse and excite curiosity, than to disturb the peace of the community.

The founder of Homœopathy was born in Saxony, in the year 1755, and received the degree of M.D., at Erlangen; after which he resided for some time at Gommern, where he occupied himself in translating works from the English, French, and Italian languages into German. It is not claimed that he had any medical practice, although he held himself in readiness for the discharge of professional duties; but after his nostrums failed, he abandoned all idea of practice, "because," he said, "it afforded no great principle by which he could, *in all cases*, guide his course." It would not be uncharitable to believe, that he might have been actuated by other motives; for he could not have been ignorant, that the physician has to deal with psychological facts, involving the idea of life, which, constantly varying, cannot be subjected to a system of the same rigid experimentalism as physical phenomena, and cannot, therefore, furnish the same definite laws. In 1790, Hahnemann claims to have discovered the *similia similibus* principle, while translating Collins' "Materia Medica," by experimenting on himself, with cinchona bark, which, he says, produced all the symptoms of intermittent fever; although similar trials since made with the same medicine have uniformly failed in causing the same results. In 1796, he published his first dissertation on homœopathy in Hufeland's Journal. In 1805, he brought out a treatise on the virtues of medicines, and in 1810, the *Organon* appeared. In 1811, he commenced to teach his system in Leipsic, and is said to have performed the experiments on himself and pupils, which formed the basis of the "Materia Medica Pura," which appeared during the same year. Let it be borne in mind, that Hahnemann claimed to have discovered in homœopathy an infallible method of cure, applicable to all cases, and never failing to eradicate disease. Now turn we to his work on "Chronic Diseases," (translated by *Dr. Hempel*, New York, 1845, Vol. I. p. 18,) and one of his latest productions.

Here Hahnemann acknowledges the complete failure of homœopathy in the treatment of chronic maladies. "First," he says, "the treatment was satisfactory, then it became less favorable, and finally hopeless. *Despite of these failures*, the doctrine itself has been, and will ever be, founded upon the unshakable pillars of truth. *Facts* have confirmed its infallibility!"

"Why," he asks, "should homœopathy have failed *in thousands of cases*, to cure such chronic ailments thoroughly and forever. These failures were perhaps owing to the small number of the homœopathic medicines, whose pure action had been ascertained. The followers of homœopathy were satisfied with this excuse. But the founder of homœopathy rejected it as a mere subterfuge. For the yearly increase of powerful homœopathic remedies left the treatment of chronic non-venereal diseases in the dark, whereas, acute diseases, *provided they were not fatal from their beginning*, were not only considerably alleviated by correctly-chosen homœopathic remedies, but even *promptly and thoroughly cured by the vis medicatrix of the organism*." (p. 18.)

"Why," he asks, "should this vis medicatrix of the organism, whose object is to restore the integrity of the organism, and to be indefatigably active in completing the recovery from virulent acute diseases, have been insufficient to effect a durable cure of those chronic maladies, even when it was aided by those homœopathic remedies, the symptoms of which corresponded most accurately to those of the disease?" In trying to answer this question, H. states that he was led to the discovery of the nature of chronic diseases, which *he kept secret* till the year 1827, when he communicated it to two of his disciples. "I did so," he says, "in order to avoid the danger of seeing my discoveries lost to mankind." He was then in the 73d year of his age! This discovery consisted in ascertaining (?) that 7-8ths of all chronic maladies are caused by *psora*, or *itch*, and the remaining 1-8th by *syphilis* or *sycosis*, (wart-disease,) and of course that the treatment was to be directed against these imaginary and latent diseases, and not the apparent disease, or that which prevailed under a disguised livery. "This *psora*," says Hahnemann, "is the oldest, most universal, and most pernicious chronic miasmatic disease. For thousands of years it has disfigured and tortured mankind, and during the last centuries, it has become the cause of those thousands of incredibly different, acute as well as chronic, non-venereal diseases, with which the civilized portion of mankind becomes more and more infected upon the whole inhabited globe." p. 23. Again, "All natural chronic ailments now existing, which have not been produced by bad medical treatment, or by the fumes of quicksilver, lead, arsenic, etc., in the work-shops, and which we find arrayed in the usual treatises on pathology as distinctly-bounded and separately-named diseases, originate in *psora*, as their fountain head," (*Loc. cit.*) We leave these quotations without comment, adding one more jewel as a pendant to the string. "Careful observations, comparisons and experiments, in latter years, have revealed to me the fact, that the tedious ailments of both the body *and the soul*, which differ so much from each other in their principal symptoms, as well as in the different patients, are all of them nothing but partial manifestations of one primitive chronic psoric miasm, in which they all originate, and whose innumerable symptoms form but one integral disease; and ought, therefore, to be regarded and treated as parts of one and the same disturbance. *Of this nature are the great epidemic typhus fevers, like that of* 1813." (p. 22.)

A proneness to secrecy and dissimulation were prominent traits in the character of Hahnemann; disguise and concealment entered into all his plans, and influenced all his actions. From the time that he advertised his grand panacea, *borax*, to the very last years of his life, when he confessed that his system of practice had been an entire failure, so far as the treatment of chronic diseases was concerned, and that he had kept to himself for nearly 30 years the true theory and mode of curing this class of disorders, during all this long period he had been openly proclaiming the success of his system, *as set forth*, and its superiority over all others, in the management of every class of affections; while, according to his own late confession, he was conscious all the time it was a perfect failure. We do not wish to judge any man uncharitably, but we are directed by high authority to judge a tree by its fruits, and to this test we wish to bring the founder of homœopathy. We cannot reconcile, we repeat, with honesty of purpose or even common humanity, this long and cruel silence regarding the success of his practice, while his deluded followers were trusting to it as their sheet-anchor, to the neglect of known established methods of cure. It is dreadful to contemplate the number of lives which were thus sacrificed to pride of opinion, and obstinacy of will;—lives hardly atoned for by late and reluctant confession, at a time when death seemed staring him in the face. Throughout his works, wherein are recorded his experiments with drugs on himself or others, we never find him stating the dose, or the intervals of administration; so that it is impossible to verify his experiments if we would. He only directs to "dynamize" one drop, or one grain of the medicine, but how much he used in his experiments he leaves us to guess. Under *Lycopodium* he speaks of the "wonderful medicinal properties, which can only be disclosed by trituration and succussion;"* and under "*Salt*" he speaks of the peculiar processes of trituration and succussion bringing to light a new world of powers, which Nature keeps latent in crude substances!"

We infer, of course, from these and other statements, that Hahnemann's experiments were performed with the little doses, although the symptoms, as recorded, are of the most painful and aggravated character, and such as the crude articles never would have produced; yet he always contended, notwithstanding his statements that trituration and comminution developed such "wonderful power," that the high dilutions *were infinitely safer*, and that "if they did no good, they would do no harm." He acknowledges that he had "killed" patients with drugs in their ordinary officinal forms, but had never done any injury with his potentizations! and such *hocus pocus* as this he expected his purblind followers to swallow, as they did his confessions; and if the truth were known, his practice would give the lie to his pretence, that "latent power" is developed by trituration. When we have swallowed at a time thousands of homœopathic pellets, and tens of thousands of doses of homœopathic dilutions, and when we have offered to swallow with our dinner, by way of *dessert*, all the homœopathic medicines in the city above the third dilution, we have been told that the peculiarity of these remedies is not to operate upon the healthy, but only on individuals whose disease bears to them a certain specific relation and affinity; and when we have asked these same persons if Hahnemann's experiments were not made with the infinitesimals, or high dilutions, the answer has been—*nothing!* Let them learn of Jahr, (Am. Ed. p. 4, 1838,) "Every cure, and for the most part, the symptoms produced on healthy persons, have been effected with what are called *the little doses.*"

We have always been puzzled to understand how it was that medicines made so "tremendously potent" by trituration, are safer than our doses of the same substance for which we claim no such power. How it is that such powerful agents have no sensible effect on a healthy man, when doses of the same substance, whose powers have not been so prodigiously developed, act with admitted power. And especially have we wondered why, if homœopathic remedies are so "tremendously potent," it is necessary to suppose the body, in disease, to be specially susceptible to them, in order to account for their action at all, when the *same* substances, given in the *same* diseases, in doses not possessing this potency, act so powerfully as to augment the disease, and even, in some cases, cause death!

But Hahnemann explains the difficulty; the high "potentizations" are, after all, absolutely inert, and if they do no good, they can never do any harm. A careful examination of Hahnemann's works, then, compels us to believe that he was artful, disingenuous, and insincere. We doubt very much whether he himself believed in his own doctrines for years after they were first broached, and such was the opinion of some of his own intimate friends. His want of success in obtaining business in the treatment of disease, as well as the merited discipline to which he had been subjected, for violating the laws of his country, relating to the practice of medicine, had embittered his feelings against the regular profession, and against its modes of cure, and led him to invent some antagonist system or school, which would present an opposing front to those whom he regarded as his enemies. Some of his friends, however, who judged him more leniently, believed that his object in inventing his theory of *similia similibus* was, that it lessened the evils which he saw to arise from excessive medication; and if adopted, would leave the cure in the hands of Nature, in whose restorative energies he is said, by them, to have had the most unlimited confidence. On either supposition, it follows that he was influenced by other motives than a belief in the truth of his doctrines.

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* Chronic Diseases, Am. Ed., Vol. IV., p. 81.

We, however, cannot reconcile Hahneman's conduct and writings with what are generally regarded by the world as candor and honesty; and we will illustrate what we mean by his statements in relation to the part which nature plays in the cure of disease. It is self-evident, that to establish the doctrine that disease can only be cured by the administration of something which causes in health symptoms analagous to those of the disease itself, it is necessary to deny that *nature herself* ever cures disease; this Hahneman did in all his earlier writings. Thus, in the "Organon," (Am. Trans., p. 30,) he says, "Allopathic physicians never discovered that all those pretended crises, those evacuations and derivations produced by nature, abandoned to her own exertions, *procure palliative relief for a short time only*, and that far from contributing towards a real cure, they on the contrary aggravate the internal primitive evil, by consuming the strength and the juices. NO ONE HAS EVER SEEN THOSE EFFORTS OF SIMPLE NATURE EFFECT THE DURABLE RECOVERY OF A PATIENT!!" In another place (p. 30,) he calls the vital force "unintelligent, inconsiderate, and tending towards anything but a real cure," on page 31, he denies that "efforts of pure nature" are truly "salutary." In severe acute diseases, the efforts of nature he says "are never successful," and in those of a mild form, "only crowned with partial success," (p. 26,) again "the miserable and very imperfect attempts which the vital powers make to assist themselves in acute diseases, is a spectacle that ought to excite man to use all the resources of his learning and wisdom, to put an end by a real cure to this torment which nature herself inflicts," (p. 26. Loc. cit.) on the other hand, in the preface to his 4th volume, on "Chronic Diseases," he admits that the vital powers cure diseases unassisted by remedial agents, but not without expending a portion of both the fluids and solids of our organism (p. 2,) "we know," he remarks, "with certainty, that the vital powers do not accomplish a victory over disease *in a direct manner*, or without making great sacrifices." He then goes on to say, that though it is necessary "to assist and direct these vital forces by a properly-selected homœopathic agent," yet *it is, nevertheless, these forces that conquer!*" Here then we have an admission that nature is adequate to cure disease, although she finds it much easier when "aided by a homœopathic drug." But how easier? Let our author explain. "By *magnifying* ever so little the enemy by which the vital forces are assailed, which we accomplish by aiding the vital forces by an artificially morbid influence closely resembling the disease, we induce those forces, as from an instinct of self-preservation, gradually to unfold all their energies, until they become powerful enough to control the disease; the vital forces are then restored to the regulation of the animal functions, whereas the artificial medicinal disease disappears of itself, so soon as we discontinue the use of those agents by which it had been established in the organism." To say nothing of this singular mode of aiding nature by *magnifying* the enemy by which she is assailed, as if she could throw off a larger burden easier than a smaller one, the reader will perceive the downright contradiction of the views previously advanced, which we leave to be explained on any theory which appears most consistent.

We have said that the law "*similia similibus curantur*" is a pure fiction, founded on assumption and unsustained by facts. Converts to homœopathy take its truth for granted without proof, and often without examination, simply because, so far as we can see, Hahnemann has promulgated it. Although the science of medicine has always been founded on experience and observation, yet we are to believe that not a scintillation of medical truth dawned in the human mind relative to the proper mode of treating and curing disease, till the genius of Hahnemann rose upon the world to dim the pale twilight of Hippocrates, Celsus, Galen, Sydenham, Bœrhaave and Haller. What evidence has he given us of candor, love of truth, and devotion to science? Is it in the sale of his secret nostrums, his worthless panaceas, and scarlatina preventives, or his insufferable vanity, which led him to denounce the great lights in medicine of every age, and Paracelsus-like, boast that he embodied all wisdom and medical science in himself? It is confessed that Hahnemann had tried but very few, if any experiments, when he announced the *universality* of the *homœopathic law*. *He had not even applied it in the treatment of a single disease at the time of its announcement*, but arrived at it, as he acknowledged, chiefly from noticing the effects of a single medicine on himself, viz., *quinine*. From that time until the appearance of the "Organon," he was engaged not in applying his principle in the treatment of disease, but in experimenting with drugs in infinitesimal doses on himself and his students. The "*Materia Medica Pura*," (Part 1st,) which appeared in 1811, contained the results of these experiments, not one of which, we feel confident in saying, had been verified either by himself or any one else at the bed-side. That these effects were purely *imaginary*, we also feel assured, inasmuch as those described as resulting from certain agents, as *charcoal, salt, lime*, etc., not only differ *in toto* from any effects ever before or since observed from the same articles, although some of them have been in daily use from time immemorial, but they differ entirely from those witnessed by Joerg and his company of experimenters, when the same medicines were taken in appreciable doses. We have besides, again and again, taken them ourselves, and given them to others without ever observing the slightest effect. What evidence. moreover, have the practitioners of this school, in support of the universality and infallibility of this assumed "law?" Is it in the success of their practice? Far from it, for, of all modes of treatment, it is well known that the homœopathic is the most unsatisfactory and unsuccessful. Were it not for the regulated diet, which is usually adjusted according to the most approved rules of ancient and modern writers, and the confidence inspired by unlimited promises, which generally bear an inverse ratio to the performance, homœopathy would never have met with sufficient success as to have gained a single convert, or have acquired even an ephemeral foothold in the community. How then, we ask again, do the disciples of Hahnemann convince themselves of the truth and universality of the law. Now we hesitate not to say, that they take it for granted, not only without evidence, but in the face of thousands of well established facts which prove its falsity. Their love of novelties, of hypotheses, of a grand, though false, generalization, outweighs their love of truth, of induction, of established facts; and in the want of a well-grounded knowledge of physiology, pathology, and therapeutics, they adopt a system at war with all these, with reason, and with common sense. A belief in *Thompsonianism* or ultra Hydropathy does not argue deeper ignorance of the true principles of the healing art, than a belief in homœopathy.

The profession is constantly assailed by the followers of Hahnemann for rejecting his doctrines without subjecting them to trial. Although not true to the extent alleged, we contend that the educated physician is justified in rejecting homœopathy without testing it at the bed-side; and this opinion is founded on the fact, that its doctrines are not only contradictory and at variance with themselves, but self-evident absurdities. If the medical man, who seriously sets about their verification, does not endanger his reputation for soundness of mind, he, at any rate, compromits his character, as a thoroughly-educated physician, and a man of well-balanced intellectual faculties. Besides, it is unnecessary, an act of supererogation, to undertake the establishment of statements, which can be disproved by their opposition to facts already known, as well as their contradiction of one another. What would be thought of a man who should undertake to demonstrate that the three angles of a triangle are greater than two right angles; or that two and two make five; or that a part is greater than the whole? What must be thought of him who believes that a grain of medicine can be so expanded as to fill a space larger than the solar system, and yet that the bulk of a mustard seed retains sufficient power to affect sensibly the animal organism? Can a man believe an absurdity like this, and not need a dose of hellebore? The distance between the earth and the sun is 95,000,000 of miles; twenty homœopathic globules, laid side by side, extend to about an inch, so that 158,000,000,000 such globules would reach from the earth to the sun. But when the 30th (X) dilution is practised, each grain is divided into 100,000.000,000,000,000.000,000,-000,000,000,000,000,000,000,000,000,000,000,000 parts, so that a single grain of any substance, in the 30th dilution, would extend between the earth and the sun, 1,262; 626,262; 626,262; 626,262; 626,262; 626,262; 626,262; 626,262; 626,262 separate times! Can a system of medicine which puts forth such statements as this, be worthy of serious investigation? The medical man who is at all accustomed to examine, weigh, and compare facts, is justified, we say, in rejecting, at once, without examination, a system made up of such gross absurdities and fallacies. He is bound to do it in justice to his own understanding.

One great objection to the ordinary and established system of medicine, among those who adopt the homœopathic doctrine, is, the numerous *theories* that have prevailed from time to time in the medical world. This seems to have been Hahnemann's stumbling-block. But a man must be very ignorant who makes this a reason for rejecting ascertained *facts.* A *theory* is nothing but a *mode of explaining phenomena;* we may adopt one, our neighbor a second, and another person a third, and still all agree as to the *facts* in question. And so it is in medicine. There is a general agreement as to ascertained facts; these have always remained the same from the days of Hippocrates, amidst all the explanations of ingenious theorists. But what do we do, when we adopt homœopathy? Why, nothing more nor less than *deny* well-established facts; for example, that pain is relieved by narcotics; inflammation by cold and bleeding; diarrhœa by astringents, and constipation by laxatives. Constant daily observation and experience are opposed to the fundamental principle of homœopathy. If it be true, then the whole medical world have regarded as *facts* what were not such, and no cures have ever been performed, except upon that principle; and no one has observed correctly but Hahnemann.

Again, we are justified in rejecting homœopathy, without subjecting it to trial, because its recorded results, in relation to the operation of drugs, are opposed to ordinary experience. Take *common salt*, for example. Hahnemann gives us 44 pages of symptoms, many of the most painful and aggravated character, produced, as he says, by infinitesimal doses of this agent, (Chronic Diseases); but though the world has used salt from the days of Adam, no such poisonous effects have been observed to arise from it, till the founder of homœopathy discovered them. Of course, as in all other cases, he gets over the difficulty by attributing them to his "*peculiar processes* of trituration and succussion," which, he says, "bring to light a new world of powers which *nature keeps latent in crude substances,*" (Vol. IV., p. 295, Am. ed.). But these results, strange as it may seem, have never been, and never can be, verified, for the good reason, that they are wholly the offspring of his imagination. We may refer to *carbonate of lime, charcoal, silex*, etc., for examples of a similar kind. In fact, the entire homœopathic materia medica is opposed to reason and the common experience of mankind, and therefore needs no experimental trials to prove its falsity.

The practitioner can never be justified in abandoning methods of treatment, which, in his experience, he has found successful, for new and untried modes; especially when in opposition to reason and observation. The want of success, which converts to homœopathy plead guilty of, during their *allopathic* practice, is not owing to any imperfection in the resources of the art, but to their own ignorance of the proper modes of employing them. Their medical education has been radically deficient, or their minds are incapable of profiting from clinical experience. We know men, who are very learned, so far as a knowledge of the literature of the profession is concerned, but at the bed-side they are entirely powerless; they know not how to apply their knowledge; they are always as likely to resort to wrong as to right treatment. It is not strange that such should take refuge in a system which claims to give them an *infallible rule, a law, which falsely claims to be of easy application, and to always lead to successful results.*

We do not believe that any man of a well-constituted mind, whose faculties have been properly cultivated and trained, whose medical education has been conducted as it ought to be, and who has ordinary tact in applying his knowledge in the treatment of the sick; we say, we do not believe, that any such, have ever, for a moment, been led astray by the vagaries of Hahnemann, or can be found enrolled among his disciples. They know that *absolute certainty* is not to be expected in medicine; a science which deals, not with the simple relations of matter, but with organization, ever varying, and governed, in its innumerable changes, by a subtle principle; of the laws of action, of which we are, necessarily, to a great extent ignorant, and whose existence, even, we recognize only by its effects. They see in it the "*certainty of probability*," as Cabanis calls it; the same certainty which attaches to the political and moral sciences; which encourages the agriculturist to plow, and sow his seed, and the mariner to push out boldly into the trackless ocean. Because unforeseen occurrences may arise, to defeat the best conceived plans, are we to conclude that chance and haphazard enterprises are, therefore, best? The influences which affect the body, are as much beyond the control of the physician, as those on which the produce of the earth depends; and that physician who, because absolute certainty is not attainable, rejects the experience of the past, and the accumulated facts of former ages, would be equally wise with the farmer, who should, for the same reason, reject the facts and results of agricultural science.

We have proved that homœopathy fulfils none of the conditions of an inductive science; but what are its results, when brought to the test of clinical experience? Absolute failure. Is there such a person, at the present day, as a pure practitioner of homœopathy, as its rules and principles are laid down by Hahnemann, confining himself solely to *infinitesimals*, and high "dynamizations?" Is there one, who does not, occasionally, give medicines in ordinary, or appreciable, or *poisonous* doses, or who does not, at times, resort to the allopathic methods, the "*contraria contrariis*" rule of proceeding? We trow not. Have the practitioners of this school found that certainty in results, that universality of the homœopathic law, boasted of by Hahnemann, which is to serve as the polar star to guide them in the path of cure? From the honest and the conscientious, there can be but one reply.

Homœopathy, however, has not been productive of unmixed evil; for it has taught us the wonderfully restorative powers of Nature, when aided by the enforcement of rigid dietetic rules; and it has thus lessened the amount of active medicines given. Assuming, as a basis, a hypothetical fact, which later experiments have disproved, proceeding on analogies which are dissimilar, involving contradictions irreconcilable, homœopathy has, at every stage of its progress, made war upon common sense, drawn largely upon human credulity, violated all the rules of philosophy, and has now settled down into that slough of contempt, from which its ablest advocates can never succeed in elevating it.

"*Requiescat in pace!*"

Art. XVIII.—*Report of the Committee on Medical Societies and Medical Colleges, relative to the bill proposing the establishment of an Asylum or School for Idiots.*

We acknowledge our obligations to Dr. F. F. Backus, of the New York Senate, for a copy of the above Report, submitted by himself as Chairman of the Committee to whom this subject had been referred at the last Session.

We shall quote sufficient to let our readers know what has been done abroad, and what may, doubtless, be done at home, for the education of a class heretofore regarded as incorrigibly stupid and depraved.

"Your committee have, since the adjournment, obtained from Europe more information on this subject, (if more was needed,) showing conclusively that the education of the idiot is a feasible thing. Your committee are fully of the opinion that much can be done for their improvement and comfort; that most of them, instead of being a burden and expense to the community, may be so resuscitated as to engage in useful employments, and to support themselves, and furthermore, to participate in the enjoyments of society; firmly believing this, as the truth, your committee cannot be silent, so long as we have in this State 2,500 or more of these poor neglected beings.

"Many years ago, benevolent individuals had made attempts, in isolated cases, to relieve the idiot, but no systematic method of instruction had been adopted until of late years. In 1828, Ferrus, Inspector General of the Lunatic Asylums of France, ordered a school for idiots in Paris. In 1830, Voisin published a work on the subject. *Seguin recently published a memoir on his method of instructing young idiots and imbeciles.* The Academy of Sciences at Paris appointed a committee to examine and report fully on this memoir: Pariset, Flourens, Serres and Ausiere, formed the commission. Pariset, in behalf of the commission, reported. The report states that Seguin, 'by means of varied gymnastic exercises and apparatus, has been enabled to give to his idiot pupils greater force and precision in their motions. He has also taught them to make the actions of their organs subordinate to the mind. They have been initiated in the knowledge of spelling, reading, writing and drawing, etc., up to the first elements of arithmetic and geometry. They have been familiarized with the abstract ideas of figure, color, density and weight, whilst they have learned the necessity of order, of authority, of obedience, and of duty; in fine, Seguin has made his pupils healthier and wiser.'

"The commission, therefore, recommend the thanks of the academy to Seguin, and request him to continue on, and persevere in his charitable enterprise; which was unanimously agreed to."

"Dr. Ray, who has for many years been the able superintendent of the Maine Insane Asylum, and now superintendent elect of the Butler Hospital for Insane in Rhode Island, last year visited the principal hospitals in Great Britain, France and Germany, and gave the result of his observations in the April number of the Journal of Insanity, thus speaks of this school: 'At Bicetre, I spent an hour or two in the school of idiots, which has been instituted and carried on under the superintendence of Dr. Voisin. As early as 1828, Ferrus made the first attempt in France to develop the powers of idiots, which attempt has resulted in the present school of Voisin, which exhibits to the astonished and gratified spectators a triumph of perseverance and skill in the cause of humanity, that does infinite credit to the heart and understanding of that gentleman. For many years he has directed his attention to the relation between the physical organization of children and their moral and intellectual faculties. *He believes that every mental and physical talent, at all under the influence of the will, is susceptible of development and* *improvement within definite limits.* This principle he has applied to the education of idiots. For this purpose these unfortunates have been sent, in large numbers, to this institution, and subjected to a regular course of training by Dr. Voisin and his assistants. I found about eighty of them, from six to fourteen years old, in the school-room, with their teacher, Vallee, going through the ordinary routine of their exercises. These, I observed, were frequently changed, for the purpose of calling different faculties into play, without fatiguing any, and by blending instruction with amusement, physical exercise, and agreeable impressions on the senses, the interest was constantly sustained, and the attention was kept alive. At one moment a question in arithmetic or spelling was answered simultaneously; at another, they drew geometrical figures on a black board; at another, they marched around the room at the tap of the drum, beat by one of their number, and anon went through some military evolutions rather complicated. that quite outdid the highest tactical achievements of our New-England militia. These exercises were interspersed with divers games and feats of skill, such as leap-frog, fencing, jumping over a stick, etc., in which each one strove to do his best; finally, singing in unison, they left the room and proceeded to their breakfast, whither we followed them. Here each one took his place at the table, and another song was sung, when they sat down and partook of their meal quietly and orderly. I have seen many a school of ordinary children, in which good manners and correct behavior were a less prominent trait than in this. From the breakfast room they went to play in the yards, and thence to their respective trades and occupations; and thus, in a constant round of interesting exercises, calculated to cultivate some moral, intellectual, or physical power, their time is passed. In the course of my visit, Charles Emelie, whose case is described at some length by Dr. Conolly, came up and exhibited his proficiency, which, considering the desperate nature of his case, was certainly remarkable; on the black board he drew several geometrical figures as they were named to him, and again told their names when their representations in wood or card were pointed out to him. He counted, sang, and wrote upon the black board. His copy-book showed as much improvement as is witnessed in those of most ordinary school boys, and had been kept full as clean and smooth. As soon as they are old enough, they are taught a trade, and judging from specimens of their work, it was obvious they had been taught to some purpose. Some of their shoes were creditable specimens of the art."

"In an economical point of view," adds Dr. Ray, "setting aside the moral, the education of idiots does make returns for what it costs, and deserves the attention of community. It may be placed, therefore, on the same footing with the education of the deaf and dumb and blind, that of enabling them to do something for their own support. Though but few of them may be directly dangerous to society, yet none of them are suitable associates for the sound in mind, and ought to be secluded somewhere. Hospitals for the insane are not suitable for them, for the social objection is equally strong, and could not furnish the kind of education which they require. *They need establishments expressly provided for the purpose, with proper teachers and all the means and appliances of instruction and employment.*" This school, in August or September last, was still flourishing, as we learn from Dr. Buttolph, of our State Lunatic Asylum."

We must omit a large part of the Report, which is a highly able and interesting one, and close with the following remarks taken from the conclusion:

"The French and the Germans, to their honor be it said, were the first to lead the way among the nations of the earth in resuscitating the mind of the poor idiot, and elevating them in the scale of human beings, as they were first in instructing the deaf and dumb and the blind; and the success attending their attempts in instructing the idiots, are as satisfactory and as well authenticated, and we have as high authority, and that of indisputable character for making the attempt in this country for this noble object, as we had for the establishment of the deaf and dumb and blind asylums; with this remarkable difference in favor of this project, that the number of subjects to be relieved in this are much greater than in either of the other institutions. Why should we be backward in adopting and applying the means of alleviating the misery of this lowest grade of human beings that are in the midst of us, that have been so successfully used in the despotic governments of Europe.

"Your committee feel deeply sensible of the great amount of evidence necessary to do away with the strong impression resting in the mind of every man that nothing can be done for the idiot. Such is the universal opinion of all those unacquainted with what has been done, and successfully done, for their elevation. But we cannot but believe that sufficient evidence of a satisfactory character has been offered in this report, and the one made by your committee last year, to satisfy any candid mind of the entire feasibility of the project. When we reflect for a moment, that those who have the misfortune to have children deaf and dumb or blind, or who are afflicted with the great calamity of having insane friends, can find public provision in every direction for their residence and relief; while those who have the *greater* affliction of having idiot children, seek relief from public charity or private munificence in vain. The places where they can be protected and made useful are not to be found. They cannot well be taken care of at home. They are not fit subjects for Hospitals for the Insane, as they require different management from the Insane, and cannot mingle with them safely. They are neglected at Alms Houses, and at their respective homes, and wherever they are, they make no improvement, receive no instruction, and suffer much every way.

"Your committee earnestly hope that this bill will find favor with this Legislature, that the heart of many an afflicted parent within our borders, may be gladdened with the thought that soon there is to be an institution where he can safely place his poor stricken child, with the encouraging hope that he may in some measure be restored in mind, with acquired habits of cleanliness, industry, and a disposition to advance in knowledge and in some useful occupation, and become, although a weak and humble one, yet a constituent, social member of the human family around him."

Art. XIX.—*A Flora of the State of New York, comprising full Descriptions of all the indigenous and naturalized Plants hitherto discovered in the State; with remarks on their economical and medicinal properties.* By John Torrey, M.D., F. L. S., Vol. I. and II. Quarto, pp. 484, 572, (with colored plates).

The Legislature of New York by an act passed in 1836, made provision for the preparation and publication of the Natural History of the State. With a liberality scarcely surpassed by any government of the old world, the Empire State at an expense of nearly half a million of dollars, has continued from that day to the present, to prosecute this great work, until we now have issued at a merely nominal cost, to those who early expressed a wish to possess a copy, thirteen splendid quarto volumes, illustrated with beautiful colored plates and lithographs, on the following subjects, viz. Zoology, in 4 vols., by *Dr. J. E. Dekay*, including Beasts, Birds, Reptiles, Amphibia, Fishes, and Shells. Mineralogy, 1 vol., by *Prof. Lewis C. Beck.* Geology, 1 vol., by *Wm. W. Mather*, 1 vol., by *Lardner Vanuxem*, 1 vol., by *James Hall.* On Agriculture, 1 vol., by *Dr. Ebenezer Emmons.* Botany, 2 vols., by *Dr. John Torrey.* The last work we purpose briefly to notice.

One of the earliest treatises on the botany of New York, is the *Plantæ Coldenhamiæ* of Governor Colden, published in the Acts of the Royal Society of Upsal for the year 1744. It is an account of the plants growing spontaneously in the neighborhood of Coldenham, in Orange Co., and embraces only the first 12 classes of the Linnean system. Kalm, a pupil of Linneus, visited North America in 1747 and collected plants in this State, which are often mentioned by Linneus in his writings. Dr. Wangenheim, a Hessian surgeon in the British army during our revolutionary war, paid much attention to the plants of this country, and published a work after his return to Germany, on the Trees of North America.

Michaux the elder travelled in the northern and southern parts of the State in 1792, while engaged in collecting plants for the French Government, as well as for his *Flora Boreali Americana*, which was published in Paris in 1803. He was accompanied by his son, who afterwards visited this country and travelled extensively in most of the States east of the Mississippi, and on returning to Europe, published in 1810 his splendid work on the Forest Trees of North America. The younger Michaux examined the valley of the Hudson, the borders of Lake Champlain, and a considerable portion of the western counties. The late Dr. C. W. Eddy was a zealous botanist, and explored particularly the vegetable productions in the southern sections of the State. In 1808 he published in the New York Medical Repository, a list of plants growing spontaneously around Plandome in Queens county. The same year *Pursh*, author of the *Flora America Septentrionalis,* made an extensive botanical tour on foot through the State, the fruits of which are recorded in his work. In 1811, Major Leconte, the veteran naturalist of our city, whose intimate and accurate acquaintance with every department of natural history is unsurpassed, published in the *American Medical and Phil. Register*, edited by *Drs. Hosack and Francis*, a catalogue of 468 species of indigenous and naturalized plants growing spontaneously on the island of New York. In 1814 the late Prof. *Jacob Green*, published at Albany his list of the native plants of the State of New York. In 1817 Prof. *Torrey* prepared a list of the plants growing within 30 miles of the city of New York, which was published in 1819. This list embraced 1300 species, including a considerable number of the *Cryptogamia*. The late Prof. *A. Eaton*, published the first edition of his Manual of Botany in 1818.—This work has passed through eight editions, the last of which in an enlarged form, under the title of *North American Botany,* is dated 1840, and was prepared by Mr. *Eaton* and *John Wright*, M.D. Prof. *Torrey* published the first edition of his *Flora of the Middle and Northern States*, in 1823-4, arranged according to the Linnean System, and embracing the classes from *Monandria* to *Icosandria* inclusive. The work was here suspended, but a *Compendium* of the Flora was published by Prof. *T.* in 1826. In 1833, Prof. *Lewis C. Beck* put forth a well-digested and comprehensive *Botany of the Northern States,* which was the first American Treatise in which the Natural System was followed. In 1836, Prof. *J. Hall* and Dr. *J. Wright* published a catalogue of Plants growing in the vicinity of Troy. Besides these, various articles on the Botany of this State have appeared in our different scientific and other periodicals, by Mr. *H. H. Eaton*, *David Thomas*, Prof. *C. Dewey*, *L. B. Mead*, *W. V. S. Woodworth*, Dr. *A. Thompson*, Dr. *P. D. Knieskern*, Dr. *A. Gray*, etc. To these may be added the great and very complete work of Drs. *Torrey* and *Gray,* now in course of publication. The above facts we gather from the author's preface.

As to the manner in which Dr. Torrey has executed his task, it is unnecessary for us to speak. He has very properly, as we think, thrown his report into the form of a Flora; for the work would possess but very little value, unless the plants were so described that they could be identified: hence it must necessarily assume a scientific form.

The Plates are well executed, and do much credit to the Lithographer, Mr. Geo. Endicott. We regret, however, that they could not have been engraved, as this mode of illustration is better adapted to botanical subjects.

The work is destined to remain a lasting monument to its accomplished and indefatigable author.

Art. XX.—*Agriculture of New-York: comprising an Account of the Classification, Composition, and Distribution of the Soils and Rocks, and the Natural Waters of the different Geological formations; together with a Condensed View of the Climate, and the Agricultural Productions of the State.* Vol. I. By Ebenezer Emmons, M. D.

The work, whose title we have given, is the first volume of the fifth part of the Natural History of New-York; and is executed in the same splendid style with all the other volumes of the series. And, although it is strictly what its name imports, viz., a work on Agriculture, yet a large portion of its contents will neither be found uninteresting nor unprofitable to the medical reader. For the soil and climate of a country do not more certainly give *character* to its agricultural productions, than to its diseases. Hence, whatever pertains to the nature and influence of these, is matter of interest alike to the farmer and the physician. The contents of the volume before us may be considered under three heads: 1st. The Meteorology or Climate of the State; 2d. Its Geology; and 3d. The Classification, Composition, and Production of its Soils. The first part of the work, or that relating to climate, was compiled by James H. Coffin, tutor in Williams College, from observations made in fifty-eight different localities, scattered over every part of the State; and principally embodied in the annual reports of the Regents of the University of New-York. He divides the state into six districts, viz.: the Long Island district; the valley of the Hudson; the valley of the Mohawk; the region North and West of the valley of the Mohawk, extending from the East line of the state to Lake Ontario and the St. Lawrence; the region South-west of the valley of the Mohawk, extending from the Hudson river valley to the vicinity of the smaller lakes; and all that part of the state that lies West of the preceding divisions. The writer, after establishing, by an extensive collation of facts and observations, the rule that the diminution of temperature by elevation is about 1° for every 350 feet of elevation, proceeds to ascertain the mean temperature of the state, the maximum and minimum, and the mean annual range, together with the forwardness of the seasons, as established by observations continued through fifteen successive years, ending in 1842. The following table, which we quote entire, shows the result, together with the number of localities in which observations were made, and the number of observations:

	Mean dates.	Number of localities.	Number of observations.
Robins first seen,	March 19.	44	266
Shad-bush in bloom,	May 1.	48	168
Peach do.	" 2.	57	175
Currants do.	" 4.	58	269
Plum do.	" 6.	52	264
Cherry do.	" 7.	52	250
Apple do.	" 15.	59	374
Lilac do.	" 15.	45	151
Strawberries ripe,	June 12.	58	210
Hay harvest commenced,	July 8.	34	127
Wheat harvest do.	" 25.	45	186
First killing frost,	Sept. 23.	57	471
First fall of snow,	Nov. 5.		536
Mean temperature of the state,	46°49′	59	577
Mean annual maximum,	92°00	59	550
Mean annual minimum,	12°00	59	551
Mean annual range,	104°00	59	550

For convenience of comparison, we may throw the temperature of each division of the state, as given by our author, into a tabular form, as follows, viz. :

Districts.	Mean annual temperature.	Mean annual maximum.	Mean annual minimum.	Mean annual range.
1st. Long Island,	50°02	90°72	2°61	88°11
2d. Hudson valley,	47°89	93°75	11°53	105°28
3d. Mohawk valley,	45°28	91°75	15°50	107°25
4th. Northern,	44°26	91°89	21°33	113°22
5th. Southern,	44°22	90°77	18°62	109°39
6th. Western,	46°77	91°82	5°72	97°54

This table exhibits the Mohawk valley as at least one degree colder than either its latitude or elevation would require. This has been attributed, and perhaps truly, to the greater prevalence of West, Northwest, and North winds. On the other hand, the Western district, where South winds prevail, the mean temperature is nearly half a degree above the mean for the state, and the mean annual range is 6½ less than the mean for the whole state. The effect of elevation on temperature is also found to be influenced very much by the degree of abruptness of the ascent; the diminution of temperature being much greater for a given number of feet, where the ascent is rapid than where more gradual. There is great uniformity in the extreme heat of summer throughout the state, Montgomery, in the valley of the Hudson, giving the highest mean annual maximum, being 5°86 above the mean for the whole state; and Plattsburgh, in the Northern district, the lowest mean annual maximum, being 5°50 below the maximum for the state. The extreme cold of winter, or the mean annual minimum of temperature, exhibits much greater variations; and illustrates much more sensibly the influences of elevation, proximity to bodies of water, etc. Thus, the difference between the mean annual minimum of Long Island and the South-western district is over 21°, while the difference in their latitude is less than two degrees. But one is an island in the ocean, little elevated, while the other is elevated from 1000 to 1300 feet, and remote from any considerable body of water.

We think a much more natural and simple climacteric division of the state would have been, the Long Island or Atlantic district; the valley of the Hudson and its tributaries; the Highlands, embracing that great elevated, triangular region, North of the Mohawk, and extending Southward to Pennsylvania and New Jersey, a region which is pretty uniformly over 1000 feet above the level of the sea; and the Western or Lake district. The following table will show the annual average quantity of rain in the several districts, according to this latter division, viz.:

Districts.	Number of years.	Prevailing winds.	Average quantity of rain.
Atlantic or Long Island,	20	N. W.	40.51
Hudson valley,	20	S.	40.00
Highland,	15	W. & N. W.	36.80
Western,	15	W. & S. W.	35.52

Such are some of the general facts presented, in regard to the climate of the state, but for all the interesting and important details, the reader must refer to the volume itself. In regard to soils, their origin, composition, and agricultural capabilities, the volume abounds in matter of great interest to the intelligent farmer. It contains numerous tables, exhibiting in detail the composition of rocks and soils, from almost every part of the state; and did our time and space permit, we might select many items of more or less interest to the physician.

ART. XXI.—*The Analysis of Physiology, being a Condensed View of its most important Facts and doctrines; designed especially for the use of Students.* By JOHN J. REESE, M. D., Lecturer on Materia Medica, etc., etc. Philadelphia. J. G. Auner, Market street. 12mo., pp. 314.

THE object of this treatise is to present in a condensed form for the use of physicians and students in medicine, the most prominent facts and doctrines of Physiology. From a careful examination of its pages, we are satisfied that this has been satisfactorily accomplished, and that the reader will find in it a very judicious compilation of the leading facts and doctrines of the science. The arrangement of the work is chiefly formed after that of Carpenter's "Manual of Physiology;" but the author has drawn very freely from the recent works of Todd and Bowman, Simon, and others. The subjects passed under review, are those generally treated of in similar works. We cheerfully recommend it as a highly useful manual for students, and a treatise that may be profitably consulted by the general reader.

ART. XXII.—*The South-Western Medical Advocate.* Edited by JAMES CONQUEST CROSS, M. D., Prof of the Institutes of Medicine, etc., in the Memphis Medical College, etc. No. 1, Vol. I., for July, 1847. 8vo., pp. 48. Memphis, Tenn.

WE welcome this new laborer in the medical field, and we tender our best wishes for future prosperity and success. The first No. of this new journal, which is put forth as the organ of the "Memphis Medical College," is taken up with the inaugural discourse of Prof. Cross, which is devoted to a discussion of the policy of establishing a School of Medicine in the city of Memphis, Tenn. It is but just to say that the Professor makes out his case very clearly, provided we admit his premises to be sound; perhaps it would be hardly courteous in us, at this distance, to express a doubt on this point, and yet we suppose, like all other questions, it must have two sides to it. Whether our friends at Lexington, and Louisville, and Cincinnati, and New Orlèans, see eye to eye with the author, remains to be known; we will, however, venture the opinion that some of them will question the accuracy of his data most decidedly. We have always said and always believed that medical men were the greatest philanthropists of the age, and we have here a case in point. The Professor boldly asserts, that "the undertaking of establishing a new medical college has been prompted, not by ambition or a selfish regard for individual interests, but by the absolute requirements of the case—by the complete and irresistible conviction that another school of medicine is *indispensably necessary.*" (Page 3.)

Dr. C. remarks, that of the two hundred teachers of medicine now engaged in the different colleges of the United States, but few know anything of Southern diseases, and that of the thirty-six medical schools, but three, Charleston, Augusta, and New Orleans, have teachers practically acquainted with the maladies of the South. "Schools of Medicine," says Dr. C., "to be really useful, must possess teachers, who, from personal observation and experience, are competent to communicate a knowledge of the proper management of the diseases which those whom they profess to instruct are expected to have to treat. Otherwise, they will be graduated in the knowledge of books, and the peculiar speculations of professors, without being in any respect fitted for the discharge of the duties to which they will be called." (Page 4.) There may be something in this argument, but we confess we cannot think it entitled to any great weight. We suppose that students of medicine, at the present day, do not draw all their information on practical medicine from those upon whose lectures they attend for a few weeks or months. We hope and trust that this constitutes but a small part of the resources upon which they draw for medical knowledge. We see but precious little difference in being "graduated in the knowledge of books," or of lectures, for the most part taken from books. Have we no medical works that treat of Southern diseases? No journals specially devoted to this object? Can information only be communicated *orally?* If so, what are books for? Dr. Cross' argument reminds us of Samuel Thomson, the founder of the Botanic system. He was continually preaching against books and book-learning, and the impossibility of acquiring a knowledge of the healing-art, except by studying nature, or listening to those who have had experience in the treatment of disease; and yet this same Thomson prepared two huge volumes, in which he recorded his own experience, and explained his theory, and which, with a patent from the U. S. Patent office, is still sold for twenty dollars. Do the professors in our medical schools, who have not practiced South of Mason and Dixon's line, know nothing of Southern diseases? If they have not actually treated them, they know the views of the most enlightened men in the profession who have; and this knowledge they communicate to their students; and we have yet to learn why it is not equally valuable as that which flows from the lips of Dr. Cross. Moreover, is there such unanimity of opinion among our Southern brethren in relation to the pathology and treatment of diseases peculiar to their section of country, as to authorize them to assume such a tone of superiority and dogmatism, as we regret to notice in the discourse under consideration?

For example, Dr. Cross and Dr. Cooke have both been educated at the South; is there perfect harmony in their views and opinions in relation to the management of Southern diseases? If not, which shall the student adopt? Both cannot be altogether right. May not the lessons of one, forsooth, be worth no more, even, than the teachings of some Northern professor? When our Southern brethren see eye to eye, and teach the same doctrines, and derive the same lessons from observation and experience; and when these lessons can only be taught through the medium of oral lectures, by those who live at the South; and when the entire literature of tropical diseases shall have become extinct; and the facts taught by Johnson, Annesley, Copland, Dickson, and a host of other practical men, whose experience was obtained in warm climates, shall live only in tradition; then and then only will we feel disposed to admit the necessity of Southern students deriving all their information in medicine from the lips of Southern men.

We have not time, nor do we feel disposed to follow Dr. C. through his entire discourse. It is written in a positive, dogmatic kind of style, and not, as we think, altogether in good taste. The charge of ignorance and want of success in Northern physicians, when called to treat Southern patients on their visit to the North, we believe to be entirely unsustained by facts; and the dangers to their health of spending their winters at the North by Southern students, will generally be considered as existing only in the imagination of the writer.

By these remarks, we do not wish to be understood as opposed to Southern schools of medicine, already established, or to the founding of new ones wherever they may be wanted. But we are opposed to resting their establishment on arguments such as these advanced by Prof. Cross, which neither do credit to his understanding nor his liberality.

Art. XXIII.—*A Class Book of Botany*, designed for Colleges, Academies, and other Seminaries. In two Parts. Part I. The Elements of Botanical Science. Part II. The Natural Orders. Illustrated by a Flora of the Northern, Middle, and Western States, particularly of the United States North of the Capitol, lat. 38° N. By Alphonso Wood, A.M. 2d Edition, revised and enlarged. Clermont, N. H., 1847. 12mo., pp. 645.

If any other proof were wanting of the increased attention paid to the study of botany in this country, it may be found in the rapid multiplication and sale of works devoted to this science. Here is a work, for example, of the very existence of which we were ignorant until recently; but of which a large edition has been sold in a little more than a year; and we now have a second and enlarged edition, forming one of the most valuable and complete manuals of botany hitherto published in the United States. The present treatise embraces, first, the Elements of Botany according to the most recent authorities, briefly illustrated with wood-cuts, but embodying all the established principles of the science, both in organography and physiology, by which the science has thus far been enriched and advanced. This part of the work is particularly clear and comprehensive, and we can hardly see in what respect it could be improved. The 2d Part, containing a Flora of the Northern, Middle, and Western States, comprehends all the Phænogamia, or flowering plants, with the Ferns, etc., which have hitherto been discovered and described as indigenous in these States, together with the naturalized exotics, and those which are more generally cultivated either as useful or ornamental. The descriptions of about 9-10ths of the species described, are drawn by the author himself from living or dried specimens, and they are as minute and extended as is necessary for the complete recognition of the plants, and for imparting a knowledge of whatever is peculiar or interesting in their habit, culture, or use.

There is also a well-drawn chapter on the principles of Agricultural Chemistry, as well as a synoptical view of the lower orders of the cryptogamia, with their genera, together with numerous analytical tables designed to facilitate the process of botanical analysis. The object aimed at in their construction is to exhibit at one view the most striking characteristics of each group to which they respectively relate, so arranged as to conduct the mind from a single radiating point to any desired genus contained in the volume. The whole is well illustrated with numerous and well-executed engravings.

We hope this work will have a circulation co-extensive with its merits; and that will be universal. The medical student can have no better work than this in pursuing this branch of his studies; for we assume that botany is pursued at the present day by every one who aspires to obtain a knowledge of the healing art. If the perusal of this excellent treatise does not awaken in their minds an interest in this branch of the study of Nature, then we should despair of the same result being brought about by any similar work extant.

Art. XXIV.—*Illustrations of Medical Botany*; consisting of Colored Figures of the Plants, affording the important Articles of the Materia Medica, and descriptive letter-press. By Joseph Carson, M.D., Professor of Mat. Med. in the Phil. College of Pharmacy, etc. The Drawings on Stone, by J. H. Cohen. Part I. Quarto, pp. 28. Plates (colored) 20. Phil. 1847.

We are happy to announce the commencement of the publication of the above work, under such favorable auspices, and with a fair prospect of its early completion. Such a work was especially needed just at this time, when the Medical Floras of Barton and Bigelow were out of print, and nothing of the kind in the market to supply the wants of students and medical men, at a period when an increasing devotion to this branch of natural science is manifested. The plates of the present No. appear to us very faithfully executed, and the accompanying text by Prof. Carson, contains a succinct account of each plant, comprehending all the details necessary to understand its character and relations in a scientific and medicinal point of view. The classification is that of Jussieu, as modified by De Candolle—the only arrangement which promises much advantage to the medical man. We cheerfully recommend the work to all our readers, as one of high interest and excellence, and which, we are sure, will not disappoint all reasonable expectations.

Art. XXV.—*The Pathological Anatomy of the Human Body.* By Julius Vogel, M.D., Professor of Clinical Medicine at the University of Giessen. Translated from the German, with additions. By George E. Day, M.A., and L. M., Cantab., etc. Illustrated by upwards of 100 plain and colored engravings. Phil., Lea and Blanchard. 1847. 8vo., pp. 534.

The present work will not admit of analysis, and we can therefore only speak of it in general terms. The treatise is devoted to the subject of General Morbid Anatomy, embracing the discoveries effected by Chemistry and the Microscope. In these respects it is the only complete work on the subject, brought up to the actual condition of the science. It does not enter upon the consideration of pathological changes affecting special organs—these are to form subjects for a separate treatise, which will soon be issued. The different chapters of the work are devoted to the following subjects:—

1. Abnormal development of gaseous matters—pneumatoses.
2. Abnormal collections of aqueous fluids—dropsies.
3. Pathological relations of the blood.
4. The general relations of pathological epigeneses.
5. Special relations of pathological epigeneses.
6. Pathological changes in the physical properties of the tissues and organs of the body.
7. Combinations of morbid elementary changes.
8. Independent organisms in the human body—parasites.
9. Congenital modifications of the human body—malformations.
10. Changes occurring in the body after death—post-mortem changes.

These different subjects are most ably and clearly discussed, and a mass of information spread before the reader, novel and interesting in the highest degree. We have nowhere seen the subject of *Parasites* so satisfactorily elucidated, and the same may be said of many other topics embraced in the work. It deserves and should receive an extensive patronage by the profession.

Art. XXVI.—*The Half-Yearly Abstract of the Medical Sciences, etc.* Edited by W. H. Ranking, M. D., etc. No. 5: Jan. to July, 1847. Phila., Lindsay & Blakiston. 8vo., pp. 364.

We wish once more to call the attention of our readers to this most excellent and comprehensive epitome of the current medical science of the day. It presents in a cheap and condensed form the most valuable and practical results arrived at by the most learned men of the profession, and that, at so cheap a rate, as to be within the reach of every one. It gives us, in a condensed form, whatever of value has been published in medicine, during the preceding six months, in France, Germany, Italy, and America, so that those who take it, may rest assured that they will be put in possession of everything done in the profession, which is really worth knowing. It can no longer be regarded as a luxury, but one of the necessaries to the medical man, without which he is very certain to remain ignorant of many new remedies and modes of treatment, of which he cannot well be deprived.

Art. XXVII.—*Experimental Researches on the Food of Animals and the Fattening of Cattle, with Remarks on the Food of Man; based on Experiments undertaken by order of the British Government.* By Robert Dundas Thomson, M. D., etc. New York, D. Appleton & Co., 200 Broadway.

The above is the title to a small volume of little more than 170 pages, containing the results of a series of experiments, undertaken for the purpose of ascertaining the influence of different kinds of food on the health, the fattening, and the milk of animals. Besides containing many accurate tables, showing the chemical composition of the hay and other articles experimented with for food, the work abounds in observations and deductions of much value to the physician, as well as the agriculturist, for whom it is more especially designed. The articles of food used by Dr. Thomson in his experiments with two cows were, 1st, solium perenni, or rye-grass; 2d, barley and grass; 3d, malt and grass; 4th, barley and hay; 5th, malt and hay; 6th, barley, molasses and hay; 7th, crushed barley and hay; 8th, barley, linseed and hay; 9th, bean-meal and hay. The following are some of the most valuable conclusions in regard to the influence of these kinds of food, both on the cows and the quantity of milk and butter: 1st, the green grass of the pasture is productive of the greatest amount of milk and butter, and the most healthy state of the cow; and pastures containing a variety of grasses are much better than those producing any one kind exclusively: 2d, barley is better than malt, and crushed or ground barley much better than when fed whole: 3d, barley, linseed, and hay, is better than barley and hay alone, and bean-meal and hay or grass is better than either of the others: 4th, the quantity of milk and butter do not bear the same ratio to each other when produced from different kinds of food. Thus, the cows produced during the first five days, when fed on crushed barley, hay and grass, 115.68 lbs. of milk and 3.62 lbs. of butter; on malt, hay and grass, 97 lbs. milk and 3.44 lbs. of butter; on barley, linseed and hay, 101.18 lbs. of milk and 3.68 lbs. of butter; on bean-meal, hay and grass, 99.72 lbs. of milk and 3.69 lbs. of butter. Here we see the greatest yield of milk from crushed barley, and the greatest amount of butter is from the bean-meal; while the poorest of all is the malt. Another and important conclusion is, that a variety of food is greatly conducive both to the health and productiveness of animals; and the same remark is equally applicable to man. The experiments of

Dr. Thomson also seem to show very conclusively that the quantity of butter produced, or of fat deposited in the animal, is not derived from, or in any way dependent on the quantity of oily matter in the food, as has been stated by many; and he makes animal heat the product of the decomposition of the tissues, rather than of any direct union of carbon and oxygen in the lungs or blood-vessels. Thus, on page 147, he says, "as we have already stated that animal heat *is generated* by the *change* or *degradation* of the *fibrinous* tissues, it is obvious that in the nourishment of infant life there is a supply of heat from the casein, vastly superior to that afforded by fibrin supplied to the full-grown animal." The author also divides the essential parts of all food into two classes, viz: nutritive and calorifient. The first embraces the fibrin of animals and the albuminous matters of vegetables, and the latter the starch, sugar, etc. According to this arrangement, the following table, quoted from page 150, will show the approximate relation of nutritive to calorifient matter in the most common articles of food.

	Relation of nutritive to calorifient matter in	
Milk,	1 nut. to	2 calor.
Beans,	1 “	2½
Oatmeal,	1 “	5
Barley,	1 “	7
English wheat-flour,	1 “	8
Potatoes,	1 “	9
Rice,	1 “	10
Turnips,	1 “	11
Arrow-root, Tapioca, Sago,	1 “	26
Starch,	1 “	40

The very important inference to be drawn from this table is obvious at a glance. And as it has been happily expressed by our author both in relation to ordinary dietetics and medicine, we will give it in his own words. He says, "an animal at rest consumes more calorifient food in relation to the nutritive constituents, than an animal in full exercise. The food, therefore, employed by a person of sedentary habits, should contain more calorifient and less nutritive matter, than one whose occupations cause him to take more exercise. It is to be desired that some light should be thrown on this subject by careful experiments. The food of animals and the manure of plants, we thus see afford somewhat of a parallelism. Milk may therefore be used with a certain amount of farinaceous matter, such as the class of flours and meals, with probable advantage; but the dilution should not exceed the prescribed limits. * * * * * From this table, likewise, we infer that as nature has provided milk for the support of the infant mammalia, the constitution of their food should always be formed after this type. Hence we learn that milk, in some form or other, is the true food of children, and that the use of *arrow-root*, or any of the members of the starch class, where the relation of the nutritive to the calorifient matter is as 1 to 26, instead of being as 1 to 2, by an animal placed in the circumstances of a human infant, is opposed to the principles unfolded by the preceding table. In making this statement, I find that there are certain misapprehensions into which medical men are apt to be led at the first view of the subject. To render it clearer, let us recall to mind what the arrow-root class of diet consists of. Arrow-root and tapioca are prepared by washing the roots of certain plants until all the matter soluble in water is removed. Now, as albumen is soluble in water, this form of nutritive matter must in a great measure be washed away. * * * * * * Arrow-root, therefore, may be considered as flour deprived as much as possible of its nutritive matter. When we administer arrow-root to a child, it is equivalent to washing all the nutritive matter out of bread, flour, or oatmeal, and supplying it with the starch; or it is the same thing as if we gave it starch, and this is in fact what is done, when children are fed upon what is sold in the shops under the title of farinaceous food—an empirical preparation of which no one can understand the composition without analysis."

The author, after giving his opinion "that irregularities of the bowels, the production of wind, etc., in children, are often attributable to the use of such unnatural species of food;" adds, that "the administration of the arrow-root class is therefore only admissible when a sufficient amount of nutritive matter has been previously introduced into the digestive organs, or when it is inadvisable to supply nutrition to the system, as in cases of inflammatory action." What is here deduced from analyses and experiments, is amply corroborated by the observations of the most skilful physicians; and is worthy of the most careful consideration of every member of the profession. Indeed, on the subject of diet there is yet much to be learned; and we need the institution of many more carefully-executed experiments. For we are by no means certain that the division so frequently made into nutritive and calorifient principles has any natural foundation. Has it ever been demonstrated, by experiment that animals fed on calorifient principles alone, (starch and sugar, for instance,) suffer from a deficient supply of fibrinous matter or genuine nutritious material? Or, on the other hand, has it been shown that a diet exclusively of albumen, gives rise to a deficient supply of animal heat? We think many facts might be adduced on the negative side of these questions. It is true, that an animal fed exclusively on any one of these proximate principles or constituents of food, soon assumes an unhealthy aspect and eventually dies.

This, indeed, proves what is amply illustrated in the work now before us, that a variety of nutritive ingredients and frequent changes in diet are conducive to health; but it by no means appears so plain what is the precise cause of death. We have only glanced at some of the more important topics in the work of Dr. Thomson, but we commend it to the careful perusal of all our readers. N. S. D.

PART THIRD.

American Intelligence and Editorial.

The late National Medical Convention.—We are extremely gratified to find that the proceedings of the late National Medical Convention have received the almost universal approbation of the profession throughout the whole extent of our country. Such unanimity of opinion on subjects involving so many interests, and such diversified views and sentiments, is a remarkable phenomenon, and one auguring much good to our common profession. That these proceedings and deliberations were marked by uncommon wisdom and foresight, no one can hesitate to acknowledge who reviews them with care and impartiality. The guidance of a wise and intelligent Providence, seems to have controlled and shaped the doings of this important assemblage, and led to such deliberations and conclusions as must inevitably influence the interests of medical science, and medical education, in this country for many years to come. It gives us pleasure to reflect, that the New York Journal of Medicine was the first periodical to advocate the calling together of such a convention, and that, from that time forward, it has uniformly urged the necessity and expediency of such a movement, amidst the hesitating doubts of friends and the open opposition of adversaries. For this, however, we take no credit to ourselves, for we only followed the clear indications of leading public sentiment, and professional opinion, as unequivocally manifested in almost every section of the United States; from our post of observation, we could hardly mistake the signs of the times that such a movement was called for; it now remains to carry out the conclusions arrived at, in good faith, and at as early a period as circumstances will permit.

We have said that the proceedings of the convention have met with the general approval of the profession. The only exception, so far as we know at least on the part of any of the delegates, is Professor S. Annan, of Lexington. The first objection of Professor Annan is, that the convention was so constituted as to deprive it of the right of being called *national*. Let us see. There were 233 members present, representing twenty-three states, viz.: fourteen southern and western; nine northern, eastern, and middle. There were present sixty-seven delegates from sixteen State Medical Societies, of which one half belonged to the northern, eastern, and middle, and the other half to southern and western states. Seventeen county societies sent delegates; eight city societies were represented, and eight other societies, including two state medical conventions. *Twenty-eight* out of thirty-seven medical colleges, also, had representatives in the convention; twelve of which belong to the south and west. These facts, we conceive, nullify Dr. Annan's conclusion on this point. Professor Annan objects to this convention, that it can only exercise a "moral influence," and that "its decisions cannot have the force of law." This is one of the most promising features about it; the very point on which its influence turns. Can any one suppose, that if its decisions were upheld by legal enforcement, they would be more likely to be carried out than they are at present?—Nay, would they not be far more likely to prove a dead letter? We flatter ourselves that the profession, in this country, is enlightened enough to regulate itself; and that, since it has seriously taken the matter in hand, it will do so, hereafter, with or without the aid of legal enactments. Professor Annan criticizes some of the statements made in the convention, as, that "the profession is in a very degraded state," and alludes particularly to some playful remarks of Dr. Manley, of this city. Now, we humbly submit, whether the proper time to meet these statements was not on the floor of the convention itself; then was the time, we think, to show their fallacy, or inaccuracy, if they deserved this character, and not two months after they were put forth.

Dr. Annan says, that he differs in opinion from those members of the convention who "assert that the medical profession of this country is deteriorating." Very well, he has a right to this opinion; we think as he does on this point; but this does not, in our judgment, do away with the expediency of making what effort we can to advance its improvement, and correct what abuses may already exist. We are evidently "going ahead," but not quite as fast as we ought, or as we shall, by proper and united exertions. We have done a good deal, heretofore, by pulling separate and apart; now let us see what can be done by pulling all together. Dr. Annan then attacks another position, viz.: that medical schools in this country have been multiplied too rapidly, and that in this way "young men are enticed into the profession, who would not otherwise have entered its ranks." This matter, of the increase of schools of medicine, will, in this country, inevitably be regulated, to a certain extent, like other things, by the laws of supply and demand; in other words, it will regulate itself. If schools are not needed, they will not be established, or they will languish for want of support and be abandoned. If their facilities for teaching are not what they ought to be, the profession will not be slow in finding it out; and if such schools are afterwards patronized, it will be the fault of the profession itself, which sends young men to such institutions. Let not the blame be laid so much at the door of the schools, as of the profession at large, where it justly belongs. We have in the United States a population of 20,000,000, and thirty-seven different medical schools to supply it with practitioners of medicine. This gives one school to a population of over half a million, which is not too many, provided the schools are what they ought and what they profess to be. It comes legitimately within the province of the convention, to say what should be the advantages furnished by these different schools; and then, if they do not endeavor to reach the standard pointed out, they will certainly deserve, as they will receive, the condemnation of the profession. But in this matter, as in some others, changes must be slow and gradual, everything has to wait for time and opportunity. *Festina lente* is often the safest rule of proceeding. But with regard to the multiplication of medical schools, we may, doubtless, go too far, and cheapen education too much for the public good or the respectability of the profession. On this point, Dr. Annan also agrees with us, and thinks such multiplication "positively injurious in every point of view in which it can be considered." We see no difference of opinion, then, after all, between Dr. Annan and ourselves, or the convention, on this point, and we, therefore, dismiss it. Again, Dr. Annan thinks the profession has gone too far in requiring of young men, about to enter on the study of medicine, "a good English education, a knowledge of Natural Philosophy, and the elementary mathematical sciences, and such an acquaintance with the Latin and Greek languages as will enable them to appreciate the technical language of medicine, and read and write prescriptions." We acknowledge that we have been surprised in finding Professor Annan objecting to such a requirement as the above, and on the grounds which he states. If young men are not *now* to be found, possessing such qualifications, they soon would be, if they were required; or, if there were sufficient inducements for entering the profession. But, admitting that the recommendation of the convention will not, or cannot, *now* be fully carried out, will the recommendation exert *no* moral influence whatever; will it not induce some, at least who have the means, to acquire such an amount of preliminary education, as is believed, by such a respectable body, to be desirable, before entering upon medical study. We can't understand Professor Annan, when he says, "this plan begins at the wrong end, and that the community must first receive a medical education, and then there will be a demand for at least an equal degree of attainment amongst physicians." Indeed! How is it as to the clerical profession? Do the people rest satisfied with divines whose theological attainments are but on a par with their own? or, are they contented with a lawyer whose legal acquirements are of the same elevated stamp? We had supposed that the old adage, "he, who manages his own cause, *has a fool for a client*," was really founded in popular opinion; and we believe that the majority of the American people have sense and intelligence enough to prefer, in any profession or calling, an educated man to an ignoramus—a wise man to a fool. But, it seems we were mistaken. "A physician," says Professor Annan, "must converse with those who employ him, upon those subjects adapted to their knowledge and tastes; and, if he has been educated above their standard, he must bring himself down to their level; and *the inevitable consequence is*, that he forgets all that he is not in the daily habit of using; and in a few years, is but little elevated above his neighbors"! Is this really the history of the profession in this country. Certainly not; for, on the very page preceding, Professor Annan tells us, that, "if we cast our eyes over *the whole country*, we shall find that in every district the medical men are amongst the most enlightened;" where then the danger of "being brought down to a level" with the masses? If Dr. Annan answers his own arguments, he certainly ought not to ask us to do it. The amount of Algebra, Greek, and Latin, recommended by the convention, may be acquired by any one of moderate capacity, without a teacher, in less than three months; and, since this is so, we doubt whether it becomes teachers of medicine to oppose their acquirement.

The objections of Professor Annan to extending the courses of lectures, in the medical colleges, to six months, are not without some weight, and deserve consideration. We shall resume this subject hereafter. In many of his remarks, we are happy to be able to coincide with Professor Annan, from whom we should, at any time, differ in opinion with great reluctance; and for whose motives we can never entertain any other feeling than the highest respect.

Adulteration of Medicines.—The attention of the profession is invited to the following statement from the New-York College of Pharmacy:—

CAUTION TO DRUGGISTS.

☞ The Committee of Inspection of the College of Pharmacy, are instructed by the Board of Trustees to call the attention of Druggists to another dangerous fraud. A quantity of a base composition, under the name of Blue Pill, is now in market, having been lately imported by, or consigned to and sold by Messrs. Cumming, Dodge & Co., of this city. It contains but little more than one-fifth the proper proportion of mercury, according to the examination of Prof. Reid, of this College, made at our request, that we might have the corroborating testimony of the best analyst in the city. His certificate of its composition, which we append, shows an extent of methodical depravity in the manufacture, against which honest dealers will have to oppose extreme vigilance in the inspection of what they buy.

The article under notice is put up in rather large, white, flat-covered jars, containing one pound each; the joint covered with coarse pink-colored muslin; white label with nothing upon it but the British arms and the words "Blue Pill," in rather heavy letters in blue ink. The mass has tin foil laid over it, under the earthen cover.

From what we learn of its history, this spurious compound was made by William Bailey, of Wolverhampton, whose manufacture of similar Blue

Pill, two years ago, was so faithfully exposed by the late Mr. Adamson. A transcript of the correspondence on that occasion may be found in the American Journal of Pharmacy, Vol. XI., (New Series), p. 148. Mr. Adamson's letter still remains unanswered.

GEO. D. COGGESHALL, } Committee
JNO. H. CURRIE, } of
WM. HEGEMAN, } Inspection.

New-York, Aug. 9th, 1847.

New-York Hospital, Aug. 6th, 1847.

Dear Sir,—According to the request of the Inspection Committee of the College of Pharmacy, I have made an extended investigation into the composition of the Blue Pill furnished me, and have to report the following concerning this dangerous and heartless fraud.

Its composition by analysis is :

Mercury,	7·5
Earthy Clay,	27·0
Prussian Blue, used in coloring,	1·5
Sand in combination with the clay,	2·0
Soluble saccharine matters,	34·0
Insoluble organic matters,	12·0
Water,	16·0
	100

I could not see anything differing in the state of combination of the mercury, from that generally found in Blue Pill.

The density of the Pill is about the same as the genuine. This is accounted for by the large quantity of earthy matter, which, in combination with the water, gives the requisite specific gravity, and makes the deception more plausible.

The presence of so much earthy matter furnishes us with an easy means of trying it. Place 100 grains on a clean iron plate or shovel, and place the shovel over the fire until the pill is reduced to an ash. The genuine gives 2 per cent., or near it; this 29 per cent.

The per centage of mercury can be ascertained by a process proposed by me, and described in the American Journal of Pharmacy for 1844.

Your's respectfully,
(Signed) LAWRENCE REID.

Mr. Geo. D. Coggeshall, Chairman of the Committee of Inspection
of the College of Pharmacy.

Remarks.—This is but a sample of the numerous impositions practised upon American physicians in the manufacture and sale of drugs. We have again and again adverted to the frauds constantly carried on in the manufacture of spurious medicines, and have invited druggists and others conversant with these impositions to expose them through the medium of our pages. We have received in reply two or three letters, which have been published in former numbers of our Journal. We solicit still further communications on this subject.

It may not be generally understood, that the importation of drugs and medicines into this country, is chiefly in the hands of commission merchants, mostly foreigners, (German and French,) who are not druggists by profession, and who know nothing of medicines, except to buy cheaply and sell dearly. These men supply our wholesale dealers, who, for the most part, have nothing to do with the importation of the articles in which they deal, and who are not unfrequently imposed upon, as in the case of Blue Pill, as above stated. The commission dealers have agents, travelling and resident, abroad, who buy up the refuse drugs in all the principal European cities, and send them to this country, where they generally meet with a ready sale. We may mention, for example, *Rhubarb*, of which, we are credibly informed, there have been but two invoices of a good article (*Turkey*) brought into this market since last December. Immense quantities, however, have been imported, of a worthless, worm-eaten article, called *Turkey*, invoiced from *two pence to eight pence sterling*, from *four to sixteen cents per pound*, which, we have reason to know, has been ground and sold to our retail druggists for genuine Turkey Rhubarb, worth four or five shillings a pound. The *Compound Extract of Colocynth*, which has been imported into this market for the last year, does not contain a particle of Colocynth, but is made up of an inferior sort of Aloes, with some other worthless ingredients. A great proportion of the Compound Extracts are adulterated in like manner. More than half of the narcotic and other extracts, as of *Belladonna*, *Conium*, *Hyoscyamus*, *Aconite*, *Rhatany*, etc., are entirely destitute of any active properties, as we know from our experience, and *Opium* is now rarely to be met with in a genuine form. The *Attar of Roses* is more frequently than otherwise adulterated with the oil of Rhodium, of which there is also an artificial compound prepared for this very purpose. Our *Volatile Oils* are adulterated more than half with sweet and other cheap oils. The *Hydrargyrum Ammoniatum*, U. S. P. *White Precipitate*, of *Bailey's* manufacture, (Wolverhampton,) is now as much adulterated as the sample of *Blue Pill* from the same house, analyzed by Prof. Reid. This is an article of a chemical nature, which should, if prepared according to the Pharmacopœia, always be of the same quality; and yet we have its invoice price ranging from three to six shillings sterling per pound, *according to quality*. We have not ascertained whether it is mixed with *clay*, like the blue pill, *white lead*, *chalk*, or *gypsum*, but we have no doubt that one of these will be found to constitute more than 50 per cent. of it, whenever an analysis may be made. An article is now imported, under the name of *Colocynth Powder*, which is probably *Colocynthin*, mixed with some inert vegetable powder; this varies in our Custom-House invoices, from 5 to 14 shillings sterling per lb., and is often two-thirds adulterated. The *Extract of Rhubarb*, from 4 to 9 shillings sterling per pound, according to quality. The *Extract of Sarsaparilla*, as now imported, is a worthless imposition. *Quinine* is now imported in bulk instead of bottles. These latter are now generally manufactured here, together with the *labels*, according to the latest French patterns, usually the *Pelletier* stamp, we believe, is preferred. The *Quinine* now generally in use all over this country, is at least one half *Salacine;* this latter being imported very extensively for this purpose, at an expense of less than one-third that of quinine. Some dealers, however, use flour or starch for the same purpose. We believe that it is owing to the adulteration of this article that such *large doses* are required, and *safely borne*, in the malarious diseases of the South and West. We have known practitioners in these regions occasionally get hold of a genuine article, and they very soon found that their patients, so far from requiring a *drachm*, or even half that quantity, found from five to fifteen grains sufficient. The house of *Teschdorf, Fischer & Co.*, of Hamburgh, send us immense quantities of drugs of every description, especially of *Extracts*, as of "*Carduus Benedictus*," "*Chelidonium*," "*Fumaria*," "*Gratiolus*," "*Lactuca Virosa*," "*Millefolia*," and "GRAMINIS"! Where are these articles used? What are the medicinal properties of the *Extract of Grass?* The only use for the latter, we have very good reason to believe, is to mix with genuine extracts, for the purpose of dilution. The invoice price of these extracts varies from forty cents to $1,75 per pound.

Much of the *Nitrate of Silver*, so called, now on sale in our wholesale drug establishments, does not contain a particle of the metal; whether the substitution is prepared here or abroad, we do not know. Of the *Hydriodate of Potash* also a large proportion is utterly worthless, *Iodine* not entering into its composition; the article is extensively imported in this shape. In order to have an article on which they can depend, we would recommend physicians everywhere, to prepare their own Hyd. of Potash, which can be readily done as follows:—Heat slightly a mixture of 100 grains of Iodine, 2 drachms of water, 75 grains of carbonate of potash, with 30 grains of iron filings

The mass is dried to redness. The resulting red powder is heated with water, then filter and evaporate to dryness; 100 parts of Iodine will thus furnish 135 parts of very white iodide of potassium, but slightly alkaline.

Thus we could go through with the whole catalogue of medicines in daily use by the physician. It is now well known that there are establishments abroad for the express purpose of manufacturing spurious drugs for the American market, and it is high time that something was done to put a stop to it. As one important step towards reform, we hope that our wholesale dealers will hereafter import their own medicines, and not trust to a set of sharpers, who think more of money than they do of life and health. There is no propriety in leaving this branch of business in the hands of men who are not competent judges of the genuineness of the articles in which they deal. In the next place, we hope Congress will, at their next session, pass a law, forfeiting all spurious and adulterated drugs, and subjecting the owner or consignee to heavy penalties. We have appraisers now connected with the Custom House, who are regularly-educated physicians and chemists, and who are fully competent to detect these impositions, whenever they may be practised. At present, although the government is fully aware of these extensive frauds, it has no power whatever to prevent them; its *ad valorem* estimation may be *nothing*, or next to nothing, as in the case of the rhubarb, appraised *in the invoice* at two pence sterling per pound; but it has no right to exclude the article from our markets. We need a stringent law, to prevent such practices in future. Again, physicians must purchase their medicines in the crude state, and not in powder; if they do, they will be imposed upon, nine times out of ten. They must make their own extracts, syrups, pills, and tinctures. They must resort more frequently to the use of our indigenous medicines, and never employ a foreign article where a domestic one will answer the purpose. When they do purchase, they should buy only of those wholesale dealers who import their own stock; and not take their articles from those who are unacquainted with the characters of genuine drugs. And lastly, they should deal only with those who sustain the reputation of being *honest men*, and whose consciences would not allow them to go on quietly in the daily practice of imposture and deception, involving the lives and health of their fellow-men. We hope the "New-York College of Pharmacy" will pursue this subject, and expose a few more of the frauds now practised in the manufacture and sale of medicines. And although we are not personally acquainted with the Hon. Secretary of the Treasury, R. J. Walker, Esq., we have reason to believe that he will cheerfully co-operate in bringing about a reform in this matter, and thus put a check to the importation of spurious and adulterated articles, which not only detract largely from the public revenue, but prove destructive to the lives and health of our citizens, and often fatal to the reputation of the regular practitioner of medicine.

[Since the above was written, and in the hands of the printer, we have received the following communication from the New-York College of Pharmacy.—Ed.]

New-York, August 24th, 1847.

Sir.—In behalf of the College of Pharmacy of the city of New-York, I have the honor to submit for your consideration, and insertion in your valuable Journal, the proceedings of the Board of Trustees, in relation to the importation from Europe of large quantities of sophisticated pharmaceutical and chemical preparations, which must often prove highly injurious to those who may be subjected to their use.

The College has, for many years, exerted all its influence to oppose this system of culpable speculation, by cautioning dealers, through the public prints, against the purchase of such articles as were proved by careful analysis to be dangerous. This it has done cheerfully and fearlessly.

These efforts having proved insufficient wholly to suppress this alarming evil, the College has resolved to ask the co-operation of the other Colleges of Pharmacy, and all the medical institutions and practitioners in both branches throughout the Union, in an application to Congress for a law, declaring that all pharmaceutical preparations and chemicals, which shall be found, upon careful examination, to be spurious, shall be confiscated and destroyed.

With the assurance of my perfect esteem,
I remain your obedient servant,
JOHN MILHAU, Pres. Coll. of Phar. of N. Y.
To Chas. A. Lee, M. D., Editor N. Y. Journal of Medicine.

At a special meeting of the Board of Trustees of the College of Pharmacy of the City of New-York, held on August 9th, 1847, convened for the express purpose of taking into consideration the best measures to prevent the introduction, throughout the United States, of sophisticated and misnamed Chemical and Pharmaceutical preparations—it was unanimously

Resolved, That the officers of this institution be requested forthwith to call the attention of the Secretary of the Treasury of the United States to the fact, that large quantities of spurious medicinal preparations are being introduced daily into this country, not only to the prejudice of the Custom-House revenue and the honest importer, but in the sequel jeopardizing the health and lives of all those who require medical aid, throughout the land. That the Secretary of the Treasury be respectfully requested to apply the most stringent regulations within his power, to check this alarmingly growing evil.

It was further *Resolved*, That the Philadelphia College of Pharmacy, and other Colleges of Pharmacy and of Medicine, be officially requested to unite with us in presenting a memorial to Congress, to devise means to suppress this most dangerous fraud, by making all such sophisticated articles liable to forfeiture.

JOHN MILHAU, President.
OLIVER HULL, GEO. D. COGGESHALL, WM. L. RUSHTON, Vice-Presidents.
JOHN SNOWDEN, Sec.
JAMES S. ASPINWALL, Treas.

Case of William Freeman, indicted for Murder.—From the opinion of the Supreme Court of the State of New York, Judge Beardsley presiding, we quote the following remarks, which will be found to coincide with the views advanced in this Journal at the time of the former trial of Freeman. They are well deserving the attention of every medical man :—

"With these lights before us, the construction of the statute which forbids the trial of any insane person cannot be attended with much difficulty. A state of general insanity, the mental powers being wholly perverted or obliterated, would necessarily preclude the trial, for a being in that deplorable condition can make no defence whatever. Not so, however, where disease is partial and confined to some subject other than the imputed crime and contemplated trial. A person in this condition may be fully competent to understand his situation in respect to the alleged offence, and to conduct his defence with discretion and reason. Of this the jury must judge; and they should be instructed that if such should be found to be the case, it will be their duty to pronounce him sane. In the case at bar the court professed to furnish a single criterion of sanity, that is, a capacity to distinguish between right and wrong. This as a test of insanity is by no means invariably correct; for while a person has a very just perception of the moral qualities of both actions, he may at the same time, as to some one in particular, be absolutely insane, and consequently, as to this, be incapable of judging accurately between right and wrong. If the delusion extends to the alleged crime or the contemplated trial, the party manifestly is not in a fit condition to make his defence, however sound his mind may, in other respects, be. Still the insanity of such a person being only partial, not general, a jury under a charge like that given in this case, might find the prisoner sane; for in most respects he would be capable of distinguishing between right and wrong. Had the instruction been that the prisoner was to be deemed sane if he had a knowledge of right and wrong in respect to the crime with which he stood charged, there would have been but little fear that the jury could be misled; for a person who justly apprehends the nature of a charge made against him, can hardly be supposed incapable of defending himself in regard to it, in a rational way. At the same time, it would be well to impress distinctly on the minds of jurors, that they are to gauge the mental capacity of the prisoner in order to determine whether he is so far sane as to be competent in mind to make his defence, if he has one; for unless his faculties are equal to that task, he is not in a fit condition to be put on his trial. For the purpose of such a question the law regards a person thus disabled by disease as *non compos mentis*, and he should be pronounced unhesitatingly to be insane, within the true intent and meaning of this statute. Where insanity is interposed as a defence to an indictment for an alleged crime, the inquiry is always brought down to the single question of a capacity to distinguish between right and wrong at the time when the act was done. In such cases the jury should be instructed that 'it must be clearly proved that at the time of committing the act the party accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing—or if he did know it, that he did not know he was doing wrong.' The mode of putting the latter part of the question to the jury on these occasions has generally been, whether the accused, at the time of doing the act, knew the difference between right and wrong; which mode, though rarely, if ever, leading to any mistake with the jury, is not deemed so accurate when put generally and in the abstract, as when put with reference to the party's knowledge of right and wrong in respect to the very act with which he is charged. (2 Greenl. Ev. § 373.) This is the rule laid down by all the English judges but one in the late case of M'Naughton, while pending in the House of Lords. The case is reported in 10 Clark & Fin., 200, and the opinion of the judges may be found in a note to the section of Green. Ev. referred to. In Rex v. Oxford (9 C. & P. 525,) Lord Denman, Ch J., charged the jury in this manner: 'The question is, whether the prisoner was laboring under that species of insanity which satisfies you that he was quite unaware of the nature, character, and consequences of the act he was committing, or in other words, whether he was under the influence of a diseased mind, and was really unconscious, at the time he was committing the act, that it was a crime.' The insanity must be such as to deprive the party charged with crimes, of the use of reason in regard to the act done. He may be deranged on other subjects, but if capable of distinguishing between right and wrong in the particular act done by him, he is justly liable to be punished as a criminal.

"Such is the undoubted rule of the Common Law on this subject. Partial insanity is not necessarily an excuse for crime; and can only be so where it deprives the party of his reason in regard to the act charged to be criminal. Nor in my judgment was the statute on this subject intended to abrogate or qualify the Common Law rule. The words of the statute are 'No act done by a person in a state of insanity can be punished as an offence.' (2 R. S. 697, § 2) The clause is very comprehensive in its terms, and at first blush might seem to exempt from punishment every act done by a person who is insane *upon any subject whatever*. This would, indeed, be a mighty change in the law, as it would afford absolute impunity to every person in an insane state, although his disease might be confined to a single and isolated subject. If this is the meaning of the statute, jurors are no longer to inquire whether the party was insane 'in respect to the very act with which he is charged,' but whether he was insane in regard to any act or subject whatever; and if they find such to have been his condition, render a verdict of not guilty. But the statute is not so understood by me. I interpret it as I should have done if the words had been 'no act done by a person in a state of insanity,' *in respect to such act*, 'can be punished as an offence.' The act, in my judgment, must be an *insane act*, and not merely the act of an *insane person*. This was plainly the rule of law before the statute was passed; and although that took place more than sixteen years since, I am not aware that it has at any time been held or intimated by any judicial tribunal, that the statute had abrogated, or in any respect modified, this principle of the Common law.

"But to return to the trial of the preliminary question in the present case. The jury found, not as the issue required them to do, that the prisoner was or was not insane—but that he was '*sufficiently* sane, in mind and memory, to distinguish between right and wrong.' This verdict was defective. It did not directly find anything, and certainly not the point in issue; but evaded it by an argumentative finding. At the utmost, the jury only made an approach towards the point to be decided, but failed to reach it. They should have been required to pass directly on the question of insanity, and should not have been allowed to evade it by an argumentative verdict of any sort. Such a finding as this would be objectionable in a civil proceeding, [in the matter of Morgan, a lunatic, 7 Paige, 236,] and in a criminal case should not be allowed."

The result was, as we anticipated, a reversion of the judgment of the Superior Court, and the discharge of the prisoner, who is hopelessly insane and idiotic.*

University of the City of New York.—It gives us great satisfaction to state that Samuel Henry Dickson, M. D., late Professor of the Institutes and Practice of Medicine in the Medical College of the State of South Carolina, has been recently appointed to fill the chair of Theory and Practice in the University of this city, made vacant by the demise of Professor John Revere. Professor Dickson brings to this situation an experience of twenty-five years as a successful public teacher of medicine, a distinguished reputation as a brilliant lecturer, and sound practitioner; and a high and enviable character as a man of learning, talent, and honor. He is also widely and favorably known for his medical writings; especially his "Essays on Pathology and Therapeutics," in two large octavo volumes, published in 1845, and which we characterized at the time, as among the ablest medical works hitherto issued by any American author. A careful examination of the work more recently, satisfies us that our commendation was fully merited. We confidently anticipate for Prof. D. a brilliant and successful career in our city; and we welcome him, as one who has merited well of his country and his profession; and who may well be regarded as one of the brightest ornaments in the medical galaxy of the Commercial Emporium.

Empire Spring, Saratoga.—During a recent visit to Saratoga our attention was called to the waters of this spring, the properties of which were partially made known in 1846, under the name of *New Congress Spring*. Its composition, as determined by *Prof. Emmons*, is as follows:—

Chloride of Sodium	33·712
Bicarbonate of Soda	3·856
Bicarbonate of Lime	17·728
Bicarbonate of Magnesia	5·248
Hydriodate of Soda	1·500
	62·044 in one pint.

We are acquainted with a gentleman who was effectually cured of an obstinate *tinea capitis* of fourteen years' standing, in the course of a few weeks' use of this water, and after all other known remedies had been tried. It agrees well with phthisical cases, and we know several laboring under asthma and other pulmonary affections who are now drinking the water with much advantage. This may perhaps be owing to the fact that it contains no *iron*, as do most of the Saratoga waters. It answers admirably well also in cases of dyspepsia attended with obstinate constipation. We hope the profession will give the waters of this spring a fair trial in the diseases above-mentioned.

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* Since the above was written, Freeman has died in a state of perfect idiocy, and on examination by Dr. Brigham, decided evidences of chronic disease were found in the brain.—Ed.

INHALATION OF ETHER.—In cases where etherization is desirable during surgical operations, we can recommend, as preferable to the clumsy apparatus of Jackson and Morton, a simple sponge saturated with rectified ether, and applied directly over the mouth and nostrils. We lately resorted to this in a case of amputation, and found it to succeed admirably. Dr. Hayward, of Boston, stated to us some time since, that this simple method answered as well, if not better, than any other in his practice, and that it was the mode he himself adopted. This fact may be useful to army surgeons who may have occasionally to resort to etherization, without being supplied with what some seem to regard as a necessary apparatus.

REPORT OF THE COMMITTEE OF THE NEW YORK ACADEMY OF MEDICINE ON SHIP FEVER.—At the last meeting of the Academy of Medicine, the following report on the subject of ship fever, which has been the cause of so much excitement and alarm among our citizens, was read by Dr. Stewart, in behalf of a committee appointed at a previous meeting to investigate the subject.

NEW YORK, July 7, 1847.

The committee appointed at the last meeting of the Academy, to investigate the subject of the prevailing typhus, typhoid, or ship fever, respectfully report,

"That in accordance with their instructions, they have visited and inspected all the public hospitals and private institutions in the vicinity of the city into which fever cases have been received; and the result of their investigations has been so far satisfactory, as to have enabled them to obtain a vast amount of valuable general and statistical information in regard to the subject upon which they are required to report; which will place it in their power, at some future period—when sufficient time shall have been allowed to collect and arrange all the data upon which their report will be based—to present what they conceive will be an interesting and valuable record of medical experience, in regard

"1st. To the origin, causes, and mode of propagation of the fever of the present season.

"2d. To its distinctive characters.

"3d. To its autopsic phenomena.

"4th. To its statistics, and

"5th. To the course of treatment which has been attended with the most satisfactory results.

"Sub-committees have been appointed to examine into each of these departments of the general subject, and a correspondence been opened with the health-officers of various sea-ports on our continent, at which the disease is prevailing.

"As a considerable time must elapse, however, before all the expected returns can be received, and a final and satisfactory report rendered, your committee have deemed it expedient, in view of the state of public alarm in regard to this fever, to submit to you at the present time, some few general facts and conclusions in connection with the subject, which, if allowed to go forth with the sanction and approval of the Academy, will be calculated to remove from the public mind all fear in relation to the danger to be apprehended, either by citizens or strangers, from this cause.

"That there has been during the past three months an unusual number of cases of typhus, or ship fever, in our public and private hospitals, is undoubtedly true; it has been confined, however, almost entirely to emigrants, and particularly to those arriving from Ireland, to whose unhappy condition at home, and the criminal negligence of those engaged in transporting them to our shores, may be attributed the vast amount of suffering and sickness to which they have been subjected.

"The records of the Commissioners of Health show that no less a number of steerage or emigrant passengers than 84,218 arrived at this port during the first six months of the present year, and of these 74,428 have been landed since the first of April; giving a monthly average since the latter date of nearly 25,000.

"This immense increase of emigration is alone sufficient to account for a large increase in the number of cases of a disease which always prevails with us at the period of the year when emigrants are arriving. In addition to this, however, other causes, already alluded to, have had a material influence in causing the sickness of the present season.

"It is now a well-established fact, that typhus, ship, or jail fever, is capable of being produced at any time when a large number of persons are congregated together in a confined space, and deprived of the means of cleanliness, pure air, aud proper nourishment, and as most of these causes have existed to an unparalleled extent in the case of emigrants of the present season, it is rather a matter of surprise that so small a number, comparatively speaking, should have suffered from it. In the case of the Irish paupers introduced amongst us, all these causes have been in full operation; previous to embarkation they had been for a long period in a state of utter destitution—but little short of actual starvation. They had been taken on board ship in a filthy condition, and in most cases were unprovided with a single change of clothing. Numbers of them, to the extent, in some instances, of more than five hundred, have been received into the steerage of one vessel, and their condition at sea has sometimes been most deplorable. In a British vessel, (the ship Ceylon,) which your Committee were, through the politeness of the health-officer, and his deputy, Dr. Harcourt, enabled to visit and inspect on her arrival, we found 257 passengers huddled together in the steerage, which was in a most foul state. This vessel had lost as many as 30 of her passengers, previous to her arrival, and 115 were then so ill as to render it necessary to land them at the quarantine hospital.

"At other ports on this continent, vessels have arrived in a still worse condition. The ship Loosthauk, from Liverpool to Quebec, had to put into Chatham in distress. She had on leaving England, 349 steerage passengers, of whom 117 had died on the passage, and only 20 persons on board had escaped sickness. Five emigrant vessels arrived at Quebec, about the middle of the last month, which had lost at sea no less than 275 of their passengers—an average of 55 for each one of them.

"The returns made to our health-officer, at Staten Island, by captains of vessels arriving here, show an aggregate of 947 deaths at sea on board of vessels coming from European ports; and three-fourths of the number admitted into the quarantine hospital (most of them Irish) have been taken from British vessels.

"These facts prove conclusively what is the cause to which we are to attribute the increase of ship fever during the present season.

"Notwithstanding this great increase, however, we think that no danger need be apprehended by our citizens. But few of the causes, productive of the disease, exist among us; and no apprehension need be felt of its becoming epidemic, so long as due attention is paid to cleanliness and ventilation.

"The disease has, so far, been exclusively confined to emigrants, and those in constant attendance upon them—such as physicians, medical students, and nurses. We have been unable to collect the particulars of more than two or three cases, which were not traceable directly to intercourse with those laboring under the disease, and who had lately arrived from sea. Although hundreds of cases have been congregated in our public and private hospitals, no person living in their vicinity has been attacked. None have suffered but those who, as has been already stated, are in constant intercourse with, and daily attendance upon the sick.

"The bills of mortality, too, show that the disease has been confined almost entirely to the hospitals.

"From the City inspector's returns, we gather that the whole number of deaths, in this city, from typhoid and typhus (ship) fever, was, from the 2d day of January to the 26th of June, inclusive, 570.

“ Of these there died—

At the Bellevue Hospital,	260
“ Children’s Hospital on Blackwell’s Island,	18
“ Penitentiary Hospital,	6
“ City Hospital,	62
“ Private Hospitals at Bloomingdale and Harlem (whole mortality 201, of which, as these hospitals are for sick emigrants exclusively, it is fair to presume the greater part were of ship fever), say two-thirds, or	134
Total of deaths in hospitals,	480
Leaving for all other public institutions and the city generally, only	90
	570

“ This is a mortality so trifling, when it is borne in mind that it occurs in a population of more than 400,000, and embraces a period of six months, that it affords no ground whatever for apprehension.

“ In addition to all this, moreover, ample provision has now been made by the Commissioners of Emigration to provide for the accommodation of sick emigrants without the city precincts.

“ From the foregoing facts, and other information in their possession, your committee feel themselves fully justified in presenting for your consideration and adoption the following conclusions :—

“ 1. That although there has been a decided increase in the number of cases of typhus, or ship fever, in our city during the present season, as compared with other seasons, such increase is only in proportion to the increased emigration of the present year, and the bad condition of the emigrants.

“ 2 That the disease is confined almost exclusively to emigrants, and those who are in direct and constant attendance upon such of them as are sick.

“ 3. That no danger need be apprehended of the disease becoming epidemic ; and that, with a due regard to cleanliness and ventilation, our citizens have no cause whatever for alarm on the subject. All of which is respectfully submitted.

“ Ordered to be printed.” J. Campbell Stewart, M.D., *Ch’n.*

College of Physicians and Surgeons.—A new Professorship has recently been established in this Institution, of Physiology and Pathology, and Dr. Alonzo Clark, of this city, has been elected to fill it. From the well known talents and acquirements of Dr. Clark, we anticipate a successful career in his new position.

Hampden Sidney College.—Dr. James L. Cabell, Prof. of Anatomy and Surgery in the University of Virginia, recently appointed to the chair of Surgery in the Medical Department of Hampden Sidney College, Richmond, vacant by the death of Dr. A. L. Warner, has declined the appointment, and will remain at Charlottesville.

Medical College of the State of South Carolina.—204 students attended during the session of 1846–7 ; of whom 74 received at its close the degree of M. D.

Typhus Fever in Canada.—Up to the present moment, 32,338 emigrants have landed on our shores ; and of this number, exclusive of those who have died on the passage, and are sick in this city, Quebec, and the intermediate places, (and of whom we have no record, because not entering the hospitals,) upwards of 5000 have been known to have been ill—being about one-sixth of the whole number. The medical staff at the Quarantine, and at the Emigrant sheds in the vicinity of this city, have received additions to their numbers; but are yet insufficient to meet the exigency. The medical officers in charge are worn out and harrassed with their arduous and unceasing labors. The mortality is appalling. At the quarantine establishment at Grosse Isle, 2796 cases, of which more than 4-5ths were cases of fever, have been treated between the 8th of May and 19th of June. Of this number 565 have died, being at the rate of 1 in every 4·9 cases, or 20·4 per cent. At the emigrant Hospitals, in the neighborhood of this city, between the 13th and 28th of June, 1420 cases, all of fever, were admitted—the deaths during the same period numbering 331, affording a greater ratio of mortality, the rate being 1 to every 4·2 cases, or 23·8 per cent.—*British American Journal of Med. and Phys. Sci.*, July, 1847.

Annual Announcement of Medical Lectures.—In looking over the circulars of different medical schools in various parts of the United States, we are rejoiced to find them, with scarcely an exception, seconding the efforts at medical reform, lately set on foot, and doing all that lies in their power to meet the expectations of the profession generally. The *university of Pennsylvania*, the oldest medical school in the United States, has very properly set the example of lengthening her course of lectures to six months, according to the recommendation of the convention. On this subject, the faculty hold the following language:—

"With the support of the late convention, and with the presumed countenance of the profession at large, the faculty are disposed to make a fresh effort to accomplish this very desirable object. In Europe, the necessity of a period of scholastic instruction, longer than the one habitual in this country, is universally recognized; and it is believed, that in no distinguished medical school abroad is the annual session shorter than six months. There is certainly nothing in the condition of the United States which can justify their lingering reluctantly behind the communities of Europe in the means of promoting the knowledge of so important a science as that of medicine. There is as much wealth and intelligence diffused among the great masses of people in this country as abroad; and the pecuniary means of those who study for the medical profession, are probably on the average greater than those of the European student. Why, therefore, should we delay in widening our limits of instruction till they equal those of communities not more advanced in other respects? Will the world, will our posterity justify us in remaining voluntarily in a position of inferiority, which, independently of other weighty considerations, must affect the credit of our beloved country in contemporary estimation and in history?"

"It is admitted by the faculty, that, in adopting the present plan, they do so at the risk of diminishing the numbers of the class, and consequently their own emoluments. But they look to the profession for support in this attempt to elevate its character by improving the education of those about to enter it. They felt it incumbent upon them, as representing the oldest medical school in the country, to come forward and offer to the profession this opportunity of carrying into effect what appears to be its own cherished wish, and is certainly in itself highly desirable. Should the attempt prove successful, other schools will probably come into the measure; and we may thus hope to witness a universal improvement of medical education in the United States. Should it fail, the faculty will at least have the consolation of having acted in accordance with their sense of duty"

The College of Physicians and Surgeons, in this city, also, extend their course to five months. The Med. Chir. Faculty of Maryland have forbidden the board of examiners to issue licenses, except to such as come up to the standard indicated by the late convention, including preliminary education. A similar resolution has been adopted by the Connecticut Medical Society, and the Medical College of South Carolina; and the Geneva and Buffalo colleges give their cordial approval to the recommendations of the convention, and declare their willingness to adopt them as soon as it shall appear that the generality of the schools are prepared to enter upon their practical enforcement. The *credit* system is being rapidly abolished in our medical schools, and but very few continue the obnoxious custom of advertising the fact, that notes will be received in payment. Cliniques are now established in all the medical colleges of the country, and anatomical material is abundantly supplied to all, and at a reasonable rate; altogether, medical education was never advancing in this country so rapidly as at the present time; so that, in a few years, if not even at the present time, no foreign city will furnish advantages superior to those supplied at home. *New York* is, at the present moment, as replete with facilities for obtaining a complete practical medical and surgical education, as Paris, Berlin, or Vienna. No one need go abroad for instruction, who will faithfully improve the advantages at our own doors.

CODE OF MEDICAL ETHICS—Submitted by Drs. Bell, Hays, Emerson, Morris, Dunn, Clark, and Arnold, to the late Medical Convention, Philadelphia, and unanimously adopted.

CHAPTER I.—OF THE DUTIES OF PHYSICIANS TO THEIR PATIENTS AND OF THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

ART. I.—*Duties of Physicians to their Patients.*

§ 1. A Physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. Those obligations are the more deep and abiding, because there is no tribunal other than his own conscience, to adjudge penalties for carelessness or neglect. Physicians should, therefore, minister to the sick with due impressions of the importance of their office; reflecting that the ease, the health, and the lives of those committed to their charge, depend on their skill, attention, and fidelity. They should study, also, in their deportment, so to unite *tenderness* with *steadiness*, and *condescension* with *authority*, as to inspire the minds of their patients with gratitude, respect, and confidence.

§ 2.—Every case committed to the charge of a physician should be treated with attention, steadiness, and humanity. Reasonable indulgence should be granted to the mental imbecility and caprices of the sick. Secrecy and delicacy, when required by peculiar circumstances, should be strictly observed; and the familiar and confidential intercourse to which the faculty are admitted in their professional visits, should be used with discretion, and with the most scrupulous regard to fidelity and honor. The obligations of secrecy on the part of the physician to his patients, extends beyond the period of his professional services; none of the privacies of personal and domestic life, no infirmity of disposition or flaw of character observed during professional attendance, should ever be divulged by him except when he is compelled to do so by imperative circumstances. The force and necessity of this obligation are indeed so great, that professional men have, under certain circumstances, been protected in their observance of secrecy by courts of justice.

§ 3.—Frequent visits to the sick are in general requisite, since they enable the physician to arrive at a more perfect knowledge of the disease,—to meet promptly every change which may occur, and also tend to preserve the confidence of the patient. But unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician, and expose him to be suspected of interested motives.

§ 4.—A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely notice of danger, when it really occurs; and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him, that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy. For the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit, he may smooth the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquillity of the most resigned in their last moments. The life of a sick person can be shortened not only by acts, but also by the words or the manner of a physician, and that most unintentionally on his part. It is therefore a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits.

§ 5.—A physician ought not to abandon a patient because the case is deemed incurable; for his attendance may continue to be highly useful to the patient, and comforting to the relatives around him, even in the last period of a fatal malady, by obviating despair, by alleviating pain and other symptoms, and by soothing mental anguish. To decline attendance, under such circumstances, would be sacrificing, to fanciful delicacy and mistaken liberality, that moral duty, which is independent of, and far superior to all pecuniary appreciation.

§ 6.—Consultations should be promoted in difficult or protracted cases, as they give rise to confidence, energy, and more enlarged views in practice.

§ 7.—The opportunity which a physician not unfrequently enjoys of promoting and strengthening the good resolutions of his patients, suffering under the consequences of vicious conduct, ought never to be neglected. And his counsels, or even remonstrances, will give satisfaction, not disgust, if they be conducted with politeness, and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.

Art. II.—*Obligations of Patients to their Physicians.*

§ 1.—The members of the medical profession, upon whom is enjoined the performance of so many important and arduous duties towards the community, and who are required to make so many sacrifices of comfort, ease, and health, for the welfare of those who employ them, certainly have a right to require and expect, that their patients should entertain a due sense of the reciprocal duties which they owe to their medical attendants.

§ 2.—The first duty of a patient is, to select no person as his medical adviser, who has not received a regular professional education. In no trade or occupation, do mankind rely on the skill of a self-taught artist, while in medicine, confessedly the most difficult and intricate of the sciences, the world appears to think that knowledge may be intuitive.

§ 3.—Patients should prefer a physician whose habits of life are regular, and who is not devoted to company, pleasure, or to any pursuit incompatible with his professional obligations. A patient should also confide the care of himself and family as much as possible to one physician, for a medical man who has become acquainted with the peculiarities of constitution, habits and predispositions of those he attends, is more likely to be successful in his treatment, than one who sees them for the first time. A patient who has thus selected his physician, should always apply for advice in what may appear to him trivial cases, for the most fatal results often supervene on the slightest accidents. It is of still more importance that he should apply for assistance in the forming stage of violent diseases; it is to a neglect of this precept that medicine owes much of the uncertainty and imperfection with which it has been reproached.

§ 4.—Patients should faithfully and unreservedly communicate to their physician the history of the cause of their disease This is the more important, as many diseases of a mental origin simulate those depending on external causes, and yet are only to be cured by ministering to the mind diseased. A patient should never be afraid of thus making his physician his friend and adviser; he should always bear in mind that a medical man is under the strongest obligations of secrecy. Even the female sex should never allow feelings of shame or delicacy to prevent their disclosing the seat, symptoms, and causes of complaint peculiar to them. However commendable delicacy of mind may be in the common occurrences of life, its strict observance in medicine may often be attended with the most serious consequences, and a patient sink under a painful and loathsome disease, which might have been readily prevented had timely intimation been given to the physician.

§ 5.—A patient should never weary his physician with a tedious detail of events or matters not appertaining to his disease. Even as relates to his actual symptoms, he will convey much more real information by giving clear answers to interrogatories, than by the most minute account of his own framing. Neither should he obtrude the details of his business nor the history of his family concerns.

§ 6—The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness, to influence his attention to them. A failure in one particular may render an otherwise judicious treatment dangerous, and even fatal. This remark is equally applicable to diet, drink, and exercise. As patients become convalescent, they are very apt to suppose that the rules prescribed for them may be disregarded, and the consequence, but too often, is a relapse. Patients should never allow themselves to be persuaded to take any medicine whatever, that may be recommended to them by the self-constituted doctors and doctresses who are to be met with in almost every family, and who pretend to possess infallible remedies for the cure of every disease. However simple one of their prescriptions may be, it often happens that they contravene the plan of treatment adopted by the physician.

§ 7.—A patient should, if possible, avoid even the *friendly visits of a physician* who is not attending him—and when he does receive them, he should never converse with him on the subject of his disease, as an observation may be made, without any intention of interference, which may destroy his confidence in the course he is pursuing, and induce him to neglect the directions prescribed to him. A patient should never send for a consulting physician without the express consent of his own medical attendant. It is of great importance that physicians should act in concert, for although each of their modes of treatment may be attended with equal success when employed singly, yet conjointly they are very likely to be productive of disastrous results.

§ 8.—When a patient wishes to dismiss his physician, justice and common courtesy require that he should declare his reasons for so doing.

§ 9.—A patient should always send for his physician in the morning, when the first attack of his disease has not been in a subsequent part of the day. By a physician being aware of the visits he has to pay during the day, he is able to apportion his time in such a manner as to prevent a clashing of engagements. A patient should also avoid calling on a medical adviser unnecessarily during the hours devoted to meals or sleep. He should always be in readiness to receive the visits of his physician, as the detention of a few minutes is often of serious inconvenience to him.

§ 10.—A patient should, after his recovery, entertain a just and enduring sense of the value of the services rendered him by his physician, for these are of such a character, that no mere pecuniary acknowledgment can repay or cancel them.

Chapter II.—Of the Duties of Physicians to each other, and to the Profession at large.

Art. I.—*Duties for the support of professional character.*

§ Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and extend the bounds of its usefulness. He should therefore observe strictly such laws as are instituted for the government of its members;—should avoid all contumelious and sarcastic remarks relative to the faculty, as a body, and while, by unwearied diligence, he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labors, brought it to the elevated condition in which he finds it.

§ 2.—There is no profession, from the members of which greater purity of character, and a higher standard of moral excellence are exacted, than the medical; and to attain such eminence, is a duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he cannot command their respect and confidence, and to both, because no scientific attainments can compensate for the want of correct moral principles. It is also incumbent upon the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigorous understanding: and on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, and an unclouded head may be essential to the well-being, and even to the life of a fellow-creature.

§ 3.—It is derogatory to the dignity of the profession to resort to public advertisements or private cards or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, promising radical cures, publishing cases and operations in the daily prints, or suffering such publications to be made, or inviting laymen to be present at operations; boasting of cures and remedies; adducing certificates of skill and success, or to any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

§ 4.—Equally derogatory to professional character is it, for a physician to hold a patent for any surgical instrument, or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself, or of others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and, if mystery alone give it value and importance, such craft implies either disgraceful ignorance, or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them.

Art II.—*Professional services of physicians to each other.*

§ 1.—All practitioners of medicine, their wives and children, while under the paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them whose assistance may be desired. A physician afflicted with disease, is usually an incompetent judge of his own case; and the natural anxiety and solicitude which he experiences at the sickness of a wife, a child, or any one who by the ties of consanguinity is rendered peculiarly dear to him, tends to obscure his judgment, and produce timidity and irresolution in his practice. Under such circumstances, medical men are peculiarly dependent upon each other, and kind offices and professional aid should always be cheerfully and gratuitously afforded. Visits should not be obtruded officiously; as such unasked civility may give rise to embarrassment, or interfere with that choice, on which confidence depends. But, if a distant member of the faculty, whose circumstances are affluent, request attendance, and a pecuniary acknowledgment be offered, it should not be declined, for no obligation ought to be imposed, which the party would rather compensate than contract.

Art. III.—*Of the duties of physicians as respects vicarious offices.*

§ 1. The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed, sometimes require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. This is an act of courtesy, and should always be performed with the utmost consideration for the interest and character of the family physician, and when exercised for a short period, all the pecuniary obligations for such service should accrue to him. But if a member of the profession neglect his business in quest of pleasure and amusement, he cannot be considered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy, without awarding to the physician who officiates the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to unusual fatigue, anxiety and responsibility, it is just that the fees accruing therefrom should be awarded to the physician who officiates.

Art. IV.—*Of the duties of physicians in regard to Consultations.*

§ 1. A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, but his aid should be received in consultation when it is requested by the patient. But no one can be considered as a regular practitioner, or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

§ 2. In consultations no rivalship or jealousy should be indulged: candor, probity, and all due respect should be exercised towards the physician having charge of the case.

§ 3. In consultations it should be the province of the attending physician first to propose the necessary questions to the sick; after which the gentleman called in should have the opportunity to make such farther inquiries of the patient as may be necessary to satisfy him of the true character of the case. Both physicians should then retire to a private place for deliberation; and the physician first in attendance should communicate the directions agreed upon to the patient or attendants, as well as any opinions which it may be thought proper to express. But no statement or discussion of it should take place before the patient or his friends, except in the presence of all the faculty attending, and by their common consent, and no *opinions* or *prognostications* should be delivered, which are not the result of previous deliberation and concurrence.

§ 4.—In consultations, the physician in attendance should deliver his opinion first; and when there are several consulting, they should deliver their opinions in the order in which they have been called in. No decision, however, should restrain the attending physician from making such variations in the mode of treatment, as any subsequent unexpected change in the character of the case may demand. But such variation and the reasons for it ought to be carefully detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician if he is sent for in an emergency, when the regular attendant is out of the way, and similar explanations must be made by him, at the next consultation.

§ 5.—The utmost punctuality should be observed in the visits of the faculty when they are to hold consultation together, and this is generally practicable, for society has been considerate enough to allow the plea of a professional engagement to take precedence of all others, and to be an ample reason for the relinquishment of any present occupation. But as professional engagements may sometimes interfere and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will of course see the patient and prescribe; but if be the consulting one he should retire, except in case of emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient and give his opinion in *writing* and *under seal*, to be delivered to his associate on his arrival.

§ 6.—In consultations, theoretical discussions should be avoided, as occasioning perplexity and loss of time. For there may be much diversity of opinion concerning speculative points, with perfect agreement in those modes of practice which are founded, not on hypothesis, but on experience and observation.

§ 7.—All discussions in consultation should be held as secret and confidential. Neither by words nor manner should any of the parties to a consultation assert or insinuate, that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the physicians and also the credit of success as well as the blame of failure.

§ 8.—Should an irreconcilable diversity of opinion occur when several individuals are called upon to consult together, the majority should be considered as decisive; but if the numbers be equal on each side, then the decision should rest with the attending physician. It may, moreover, sometimes happen, that two physicians cannot agree in their views of the nature of a case, and the treatment to be pursued. This is a circumstance much to be deplored, and should always be avoided if possible, by mutual concessions, as far as they can be justified by a conscientious regard for the dictates of judgment. But in the event of its occurrence, a third should, if practicable, be called to act as umpire, and if circumstances prevent the adoption of this course, it must be left to the patient, to select the physician in whom he is most willing to confide. But as every physician relies upon the rectitude of his judgment, he should, when left in the minority, politely and consistently retire from any further deliberation in the consultation, or a participation in the management of the case.

§ 9. As circumstances sometimes occur to render a *special consultation* desirable, when the continued attendance of another physician might be objectionable to the patient, the member of the faculty whose assistance is required in such cases should sedulously guard against all future unsolicited attendance. As such consultations require an extraordinary portion both of time and attention, at least a double honorarium may be reasonably expected.

§ 10. A physician who is called upon to consult, should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance: his practice, if necessary, should be justified as far as it can be, consistently with a conscientious regard for truth and honesty, and no hint or insinuation should be thrown out, which could impair the confidence reposed in him, or affect his reputation. He should also carefully refrain from any of those extraordinary attentions or assiduities, which are too often practised by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals.

Art. V.—*Duties of physicians in cases of interference.*

§ 1. Medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, not on intrigue or artifice.

§ 2. A physician, in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made; no disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that may directly or indirectly tend to diminish the trust reposed in the physician employed.

§ 3. The same circumspection and reserve should be observed, when, from motives of business or friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances, and when they are made, no particular inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

§ 4. A physician ought not to take charge of, or prescribe for a patient who has recently been under the care of another member of the faculty in the same illness, except in cases of sudden emergency, unless it be in consultation with the gentleman previously in attendance, or the latter has relinquished the case or been regularly notified that his services are no longer desired. Under such circumstances no unjust and illiberal insinuations should be thrown out in relation to the conduct or practice previously pursued, which should be justified as far as candor, and regard for truth and probity will permit; for it often happens, than patients become dissatisfied when they do not experience immediate relief, and, as many diseases are naturally protracted, the want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge and skill.

§ 5. When a physician is called to an urgent case, because the family attendant is not at hand, the care of the patient ought to be resigned to the latter as soon as his attendance can be obtained, unless assistance in consultation be desired.

§ 6. It often happens, in cases of sudden illness, or of recent accidents and injuries, owing to the alarm and anxiety of friends, that a number of physicians are simultaneously sent for. Under these circumstances courtesy should assign the patient to the first who arrives, who should select from those present, any additional assistance that he may deem necessary. In all such cases, however, the individual who officiates, should request the family physician, if there be one, to be called, and on his arrival, should resign the case to him, unless his further attendance be requested.

§ 7. If a physician be called to the patient of another practitioner, in consequence of the sickness or absence of the latter, he ought, on the return or recovery of the former, with the consent of the patient, surrender the case.

§ 8. A physician, when visiting a sick person in the country, may be desired to see a neighboring patient who is under the regular direction of another physician, in consequence of some sudden change or aggravation of symptoms. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere no further than is absolutely necessary with the general plan of treatment; to assume no future direction, unless it be expressly desired; and, in this case, to request an immediate consultation with the practitioner antecedently employed.

§ 9. A wealthy physician should not give advice *gratis* to the affluent; because it is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one; and it is defrauding, in some degree, the common funds for its support, when fees are dispensed with, which might justly be claimed.

§ 10. When a physician who has been engaged to attend a case of midwifery is absent, and another is sent for, if delivery is accomplished during the attendance of the latter, he shall be entitled to the fee, but shall resign the patient to the practitioner first engaged.

Art. VI —*Of differences between physicians.*

§ 1. A diversity of opinion, and opposition of interest, may, in the medical, as in other professions, sometimes occasion controversy and even contention. Whenever such cases unfortunately occur, and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians, or a *court medical.*

And as peculiar reserve must be maintained by physicians towards the public, in regard to professional matters, and as there exist numerous points in medical ethics and etiquette through which the feelings of medical men may be painfully assailed in their intercourse with each other, and which cannot be understood or appreciated by general society, neither the subject matter of such differences nor the adjudication of the arbitrators should be made public, as such publicity may be personally injurious to the individuals concerned, and can hardly fail to bring discredit on the faculty.

Art. VII.—*Of pecuniary acknowledgments.*

§ 1. Some general rules should be adopted by the faculty, in every town or district, relative to the *pecuniary acknowledgments* from their patients; and it should be deemed a point of honor to adhere to this rule with as much steadiness as varying circumstances will admit.

Chapter III.—Of the Duties of the Profession to the Public, and of the Obligations of the Public to the Profession.

Art.—*Duties of the profession to the public.*

§ 1. As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, sustaining its institutions and burdens, and in addition they should be ever ready to give counsel to the public in relation to matters especially appertaining to their profession, as on subjects of medical police, public hygiène, and legal medicine. It is their province to enlighten the public in regard to quarantine regulations, the location, arrangement, and dietaries of hospitals, asylums, schools, prisons, and similar institutions; in relation to medical police of towns, as drainage, ventilation, etc., and in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of the suffering, even at the jeopardy of their own lives.

§ 2. Medical men should also be always ready, when called on by the legally-constituted authorities, to enlighten coroners, inquests and courts of justice on subjects strictly medical,—such as involve questions relating to sanity, legitimacy, murder by poisons or other violent means, and in regard to the various other subjects embraced in the science of medical jurisprudence. But in these cases, and especially where they are required to make a post-mortem examination, it is just, in consequence of the time, labor and skill required, and the responsibility and risk he incurs, that the public should award him a proper gratuity.

§ 3. There is no profession by the members of which eleemosynary services are more liberally dispensed than the medical, but justice requires that some limits should be placed to the demands for them. Poverty, professional brotherhood, and certain public duties, referred to in § 1 of this chapter, should always be recognized claims for gratuitous services; but neither institutions endowed by the public or by rich individuals, societies for mutual benefit, the insurance of lives or for analogous purposes, or any profession or occupation, can be admitted to possess such prerogative. Nor can it be justly expected of physicians to furnish certificates of inability to serve on juries, to perform militia duty, or to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like, without a pecuniary acknowledgement. But to individuals in straitened circumstances, professional services should always be cheerfully and freely accorded.

§ 4. It is the duty of physicians, who are frequently witnesses of the enormities committed by quackery, and the injury to health, and even destruction of life caused by the use of quack medicines, to enlighten the public on these subjects, to expose the injuries sustained by the unwary from the devices and pretensions of artful empirics and impostors. Physicians ought to use all the influence which they may possess as professors in Colleges of Pharmacy, and as having the option, in a great measure, of the shops to which they send their prescriptions, to discourage druggists and apothecaries from vending quack or secret medicines, or from being in any way engaged in their manufacture and sale.

ART. II.—*Obligations of the public to physicians.*

§ 1. The benefits accruing to the public directly and indirectly from the active and unwearied beneficence of the profession, are so numerous and important, that physicians are justly entitled to every consideration and respect from the community. The public ought likewise to entertain a just appreciation of medical qualifications;—to make a proper discrimination between true science and the assumptions of ignorance and empiricism—to afford every encouragement and facility for the acquisition of medical education,—and no longer to allow the statute books to exhibit the anomaly of exacting knowledge from physicians, under liability to heavy penalties, and of making them obnoxious to punishment for resorting to the only means of obtaining it.

SHIP FEVER AT THE BELLEVUE HOSPITAL.

To the Editor of the New-York Journal of Medicine.

Dear Sir,—In compliance with your request, I send you the enclosed brief statement of my observations and experience at Bellevue Hospital, during the late prevalence of Ship Fever, in the midst of which I was appointed to the charge of the establishment, in May last.

Your readers are doubtless informed of the immense influx of pauper immigration into the port of New-York, especially from Ireland, during the present year. Their impoverished condition by reason of the famine at home, had superinduced a morbid *predisposition*, which only needed an *exciting cause* to develope those functional disturbances, which characterize fever. Their circumstances on ship-board, being crowded together between decks, to an extent little short of that said to be resorted to in slavers; short of provisions, and even of water; without the possibility of cleanliness or ventilation; presented a combination of morbid agencies which could scarcely fail to generate, not merely fever, but *pestilential fever*, in some malignant form. Amidst such accumulated filth and wretchedness, it is not at all wonderful that such frightful reports of disease and death should herald almost every arrival; nor could it reasonably be expected otherwise, than that our hospitals and alms-houses should be crowded with the sufferers, borne thither on landing, either already sick, or so deeply infected as to render escape from an attack of fever scarcely possihle.

Such has accordingly been the fact, and to an extent which may be estimated from the following statistical items, prepared from the best data found in the hospital.

From the 1st of January, 1847, to May 25th, this hospital was under the charge of my predecessor in office, who admitted during this period 769 cases, many of them direct from ship-board. Of these, as appears by the record, 306 were discharged cured—154 died, and 309 remained in the hospital under treatment, a large proportion of whom were nearly moribund, when I assumed the charge as resident physician.

At that time, May 26th, 1847, there were over 800 patients in the house, 309 were suffering with ship-fever. Cases of the latter description were then admited at the rate of 60 to 80 per day, so that within a week or two, notwithstanding deaths and discharges, the number had increased to 1147 in the hospital, over 600 of whom were ill with the ship-fever.

With this large number, being so much beyond the capacity of the hospital buildings to accommodate, and alike beyond the available resources of the establishment, to furnish immediate supplies, very great suffering, and appalling mortality were unavoidable, until other and more extended facilities could be provided. The crowded state of the wards, which could not be adequately ventilated or even cleansed, had already resulted in developing an *endemic* atmosphere, for only in confined and impure air is this fever ever infectious. The proof that it had become so, was seen in the fact that a majority of the medical assistants had already sickened, and one of them had died. Many of the nurses were sick and some of them dead. Moreover, the adjacent alms-house building, with a population of 1500, began to give proof of having become infected, no less than 17 cases of the identical form of fever having occurred within 48 hours, some of which were rapidly fatal.

Under these appalling circumstances, 80 tents were pitched upon the adjacent green, and were immediately filled with the patients from crowded wards, which thus admitted of being whitewashed, cleansed and ventilated. A number of shanties in the yard were soon filled in like manner and for the same purpose. By these and the like extemporaneous devices, ample room was provided for the increasing numher of patients, and a thorough purification of the apartments was attained. And here, as in other cases, it was soon demonstrated, that the patients who were removed into the open air immediately improved, and a very large proportion of them soon recovered. The new cases were very generally placed in the tents, and my records show that over 200 cases were discharged cured from the tents, no one of whom had entered the walls of the hospital.

But to return to the statistics of the hospital. It appears by the books that from May 25th to August 3d, 1847, there were admitted into the hospital 917 cases of ship-fever, which, added to those remaining in the house, makes the aggregate of cases treated within that period amount to 1226 during about ten weeks.

By a table, prepared August 3d, the following results are furnished, viz.:

Discharged cured,	724
Died,	193
Convalescent,	129
Remaining under treatment,	180
Whole number as above,	1226

From these respective data, the whole number of cases of ship-fever admitted into this hospital since Jan. 1st, 1847, has been 1995, of whom 347 have died, which latter number gives the aggregate mortality, down to Aug. 3d, the date to which the calculations have been made. It gives an appalling aspect to the fever, but furnishes no just criterion of the necessary fatality of the disease, nor of its want of amenability to judicious treatment; as appears from the fact that a very large proportion of the cases were brought in suffering under the profound coma which characterizes late periods of the disease; and still worse, very many were moribund when they reached the hospital. No less than 17 died during one week, within four hours after admission, while four, during the same week, were dead before they could be carried to their beds. The folly and inhumanity of sending dying persons in a heavy carriage over the rough pavements, to so distant a hospital, must be painfully obvious, extinguishing, as it often does, the spark of life which remains, and which else might possibly be revivified.

The following extracts from the weekly reports since May 26th, 1847, though they include deaths from *all diseases*, may aid in arriving at the comparative mortality, before and after the cleansing and ventilation of the hospital, and the removal of hundreds of the sick for treatment into the open air; a measure resorted to in this instance from necessity, but found highly salutary and useful, especially in the management of ship-fever.

	No. of patients.	Deaths.
1st week,	1142	71
2d “	1020	59
3d “	956	35
4th “	985	39
5th “	981	41
6th “	956	38
7th “	937	30
8th “	947	31
9th “	868	25

During this period, the cases of ship-fever numbered about one half of all the diseases in the house; and differing but little from this ratio in the proportion of deaths, showing that the mortality, of late, is not greater than that resulting from other diseases. Since Aug. 3d, the cases of fever have been diminishing rapidly, and the whole mortality of the hospital has not exceeded 18 weekly. At present, Aug. 23d, there are not more than 50 cases of the fever in the establishment, the most of these having been landed at Quebec, whence they have found their way to this city, and these less malignant and dangerous than those we have heretofore treated.

This subsidence of the fever, so that the discharges now exceed the admissions, has reduced the aggregate of patients below 700, so that the tents have now been emptied, and I find ample room for all in the wards of the hospital; while the comfortable state of these wards, and the encouraging condition of the sick, are sources of no small gratification.

In respect to the peculiar nature and specific character of this fever, the late period at which the patients generally reached the hospital, has precluded very accurate observations. Occasional opportunities, however, have occurred for watching its inception and progress in the persons who sickened on our premises. Many of these came hither from on ship-board apparently in health, but really in a state of morbid predisposition, though latent. which soon after developed itself in an attack of the fever, as well characterized as were the cases which had fully developed the disease on board of the same ships. While others occurred among the assistant physicians, orderlies and nurses in the hospital, which were as well marked by pathognomic signs throughout their whole course; nor could they be discriminated in their symptoms, stages, or duration, from those direct from the ships. In the latter examples, it is evident that the malady originated from the pestilential atmosphere generated within our walls, which was sufficiently potent at one time to become both the remote and the exciting cause, the same identical agency being sufficient to produce the predisposition, and afterwards develope the fever.

Nor is there the slightest foundation for the suspicion of any specific contagion in the case, as is seen in the fact that no new instances of the fever have occurred in the premises, since the cleansing, purification, and ventilation of the establishment has been effected ; so that the rationale of the infection which was undoubtedly *endemic* here, and had become *epidemic* in the vicinity, must be obvious ; and is precisely the same as that existing on ship-board in the instances of sickness and death which have become so lamentably notorious. The want of pure air, of wholesome food, and of pure water, are privations which by a physical necessity generate disease. In a crowded hospital, as well as in a crowded ship, filthy apartments, ill-ventilated wards, and the confined air resulting from such untoward circumstances, have from time immemorial been known to be such violations of Hygeinic laws, as will develope pestilential fever. All who inhale such an atmosphere for any length of time become sick, and each sufferer by the morbid exhalations from his skin and lungs contributes to augment the infection, and increase the sources of danger to himself and others. Still worse, if amid such a crowd there be, as is too often the case, a neglect of personal cleanliness, and a failure to remove the morbid excretions, which, if allowed to remain, vastly add to the intensity of the atmospheric poison. Such are the precise circumstances under which, in certain latitudes and given temperatures, *ship*-fever, jail-fever, and *hospital*-fever have been generated and perpetuated. Such a pestilence may be manufactured to order; and may be arrested with equal facility by obeying the laws of Hygeine, instead of violating them. So much for the contagiousness of ship-fever. As to the figment of "contingent contagion," it is only contingent nonsense.

Those who have imagined that in this much-dreaded "ship-fever," there has been any distinctive or specific character constituting it a new disease, or in any sense *sui generis*, must have had very limited opportunities for observing it. Nor is there anything in its pathology or treatment contradistinguishing it from the family of congestive fevers, of which it is a familiar variety, modified, however, by different causes, but always characterized by the same type. Indeed, this identical fever has been annually observed to greater or less extent on board ships, in our hospitals, and in other crowded apartments of our city, inhabited by a degraded population; and it has often appeared in jails, prisons, etc., in various sections of our country.

The symptoms, course and type of the ship-fever here, have been identical with those of that form of malignant disease denominated "Typhus Petechialis," modified in different examples by age, sex, temperament, habits of living, etc., but all bearing the impress of the same cause, proving their absolute identity in nature, though differing in degree. Always congestive, often inflammatory, and very frequently both the one and the other, constituting the mixed fever of modern writers.

In the examples which came under our observation sufficiently early to allow of recording and discriminating its premonitions and development, there was found very great uniformity. The earliest and most prominent symptoms of an attack have been sudden loss of strength, soon followed by a sense of overwhelming debility, while as yet there was no appreciable functional disturbance. A disinclination for food and an inability to sleep supervened, often with great rapidity. The tongue and eyes usually presented the first distinct morbid appearances, the former becoming coated and the latter red and watery, while no manifest febrile symptoms, properly so called, were discoverable. At this period a slight chilliness was often complained of, though not always cognizable. A full chill did occasionally occur, but it was but very seldom. Nausea was very often present, and in a few rare cases vomiting, with or without diarrhœa, seemed to designate the development of the fever. The skin remained dry, and slightly elevated in temperature, while the pulse indicated the presence of indirect debility, though differing in frequency very little from the natural standard for several days, when it usually became accelerated somewhat, and in bad cases soon fell below 70 in the minute.

The most constant characteristics of this fever were great apathy, and apparent indifference to life; sudden and continued deafness; a mental torpor which could not be roused to sensibility, and the absence of all pain, or at least of all complaining, except of weakness, which was universally present throughout the whole course of the disease. Petechiæ, though not invariably present, were very generally so, occasionally over the entire body, but more frequently upon the neck, chest, and abdomen, in which situations they usually were most visible and most numerous. In general these appeared about the seventh day, but often earlier, sometimes on the third day; and I have seen them in great numbers as late as the seventeenth day of the disease, with and without sudamina, especially over the abdomen. The tongue presented very variable appearances, sometimes continuing white and thickly coated throughout, more frequently, however, becoming dry, brown, and even black, with occasional sordes, but the latter very rare, even in fatal cases. Delirium was very generally present after the seventh day, followed after a few days by coma, stertorous breathing, and subsultus tendinum, but these latter symptoms were not frequent.

In most of the cases, prior to the occurrence of delirium, a diarrhœa to greater or less extent was present, which was difficult to control by the usual remedies, when the excretions were biliary in their character; while it readily yielded under other circumstances, to a single dose of castor oil and laudanum. When this diarrhœa ceased, either spontaneously or as the result of medication, if at the same time the skin was open, convalescence was usually rapid, and a favorable prognosis might be safely made.

Relapses were frequent, even after entire convalescence, but most generally the result of some error in diet. In these the worst cases were those in which diarrhœa recurred, or erysipelatous inflammation exhibited itself. The latter cases were numerous, and sometimes fatal. Extensive suppurations of the parotid and other glands were among the worst sequelæ, and these mischiefs were observed especially with the intemperate, who were so numerous as to greatly augment the mortality of the hospital.

In respect to the treatment of this fever, there could be but very little difference of opinion among practical men, in reference to the majority of those patients received into this hospital, arriving, as they very generally did, in the later periods of the disease. So plainly was blood-letting contra-indicated, that with the exception of a single instance, it was never resorted to by myself or assistants, nor was it even proposed by any of my medical friends who visited us, after inspecting the patients. Cupping was used in a few examples for the relief of local complications, and then always with advantage. But in general the aspect of the case forbade any depletory measures, or other active treatment. Even a single drastic purge was inadmissible, nor could it be given with impunity.

The successful means adopted by us may be thus detailed. A mild laxative was prescribed, if necessary, in the beginning, after which a dose of the Sp. Mindereri, with or without a grain of Ipecacuana, was given every hour or two, according to the urgency of symptoms, and this course steadily pursued until free perspiration was induced. Meanwhile nutritious drinks were used, such as oat-meal gruel, rice or barley water, arrow root and milk, beef tea, and the like. Ice and iced water were freely used, and when much heat was present, the head, neck, and body were sponged with ice water. Mustard plasters and blisters were used when diarrhœa or delirium supervened, or any indications were present of local lesions, or increased debility. So soon as any flagging of the pulse appeared, milk punch, wine whey, or brandy and ammonia were resorted to, and continued so long as stimulation was called for. These latter agencies had to be used to a very great extent in many cases, and with the best results.

Such was the general course of treatment, modified as circumstances demanded. When the diarrhœa became threatening, injections of nitrate of silver, a drachm to the pint, were found of great value. Dysenteric symptoms were arrested by calomel, opium, and ipecacuana, with injections of iced water. Erysipelatous complications were treated chiefly with quinine, and mercurial ointment, and occasionally by blisters and nitrate of silver. And so of local lesions, which but rarely occurred, the principles of rational medicine being our guide. The limits assigned me forbid greater particularity or amplification.

The pathological results of this fever, as shown by dissection, will soon be given to the profession in the forthcoming report of the Committee of the New-York Academy of Medicine, from the notes of our excellent friend, Dr. Sabine, who, as one of the committee, has been pursuing that branch of inquiry. I may be pardoned, therefore, for the present, in only indicating what will then appear, viz.: that effusion in the ventricles of the brain was discoverable in almost every fatal case, and this for weeks together, while the autopsies were daily made. The absence of the intestinal ulcerations, which characterize the Dothinenteritis of the French writers, proved that our endemic, at least, has been called Typhoid fever by a misnomer, while the cerebral mischiefs so constantly observed, identify this fever with the other varieties of Typhus fever, being the petechial species of the genus; its malignity and danger having been the result of causes already indicated as accompanying its origin and prevalence.

Should this desultory letter serve your present purpose, written as it has been amid pressing avocations here, you may shortly hear from me again on the same topic, when more leisure shall be allowed me. For any measure of success which has accompanied my exertions in this hospital, I am greatly indebted to the diligence and toil of my assistants, Drs. O'Neil, Wendel, Mott, and Davis, who, with myself, providentially escaped the disease, while all the rest were visited by one or more attacks of fever. I am likewise under many obligations to Dr. F. Campbell Stewart, and Dr. A. V. Stout, who, at the most critical period, volunteered their valuable services and spent weeks with me in the hospital. Many others of my professional brethren, by their frequent visits, their counsel and sympathy in the trying duties to which I have been called, might be worthily mentioned, for all are gratefully remembered. Happily, none of my medical assistants fell victims to the fever, though eight of them were sick, and some of them suffered severe and dangerous attacks. In their treatment, Drs. Chalmers, Cheesman, Johnson, and others of the profession, rendered unremitting and valuable aid. You will forgive me for thus alluding incidentally and gratefully to these "friends in need," though writing for a Medical Journal, for I should do violence to the impulses of my heart, should I refrain. Their kind offices merit a better memorial, and serve to make us prouder of our noble profession.

With great respect, I remain,
Your obedient servant,
D. M. REESE, Resident Physician.

Aug. 28th, 1847.

Prof. C. A. Lee, M. D.

2.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

The law of the Morphology or Metamorphosis of the Textures of the Human Body.—By William Addison, M. D.—*The progress of Nutrition, or the reciprocal action between the Blood and the Solid Textures.*—The growth and preservation of all parts of the human body, and the renewal of its textures and secretions, whether healthy or diseased, depend upon a reciprocal action between the blood and the solid parts, termed the process of nutrition, in which certain elements or forms of matter withdrawn from the circulating current become portions of the fixed solid. If the newly-withdrawn matter assume the form of the pre-existing elements of the solid, and the quality of the pre-existing secretion, the process is said to be normal or healthy; but if the elements of the solid be changed, or the quality of its secretion altered, in consequence of any unusual change or unconformable transformation which the new matter undergoes, then the process is said to be abnormal or unhealthy.

If the circulation of the blood be observed with the microscope, in the nutrient vessels of a transparent texture in the living animal, without any previous rude handling or irritation, the stream is seen rapid and uniform; and it is impossible, from the rapidity of the current, to discriminate its cellular or corpuscular elements, except that here and there colorless cells are seen clinging to the walls of the vessels, slowly gliding along in close contact with them. If the part under observation be irritated, the regularity of the stream is immediately disturbed in a very remarkable manner; and, as if in consequence thereof, colorless cells, in increasing numbers, are observed separating themselves from the red current, and becoming fixed to the walls of the vessels. Soon afterwards, a clear colorless material appears between the stream of red blood and the solid texture, in which the colorless cells seem to be imbedded; so that the irritating cause, of whatsoever nature it may be, is productive of an actual and visible separation between the colorless and the red elements of the blood, which is seen to take place within the vessels, the red flowing onward, sometimes with the utmost rapidity, whilst the colorless remain stationary, and form a new interior coating to the vessels, (the protoplasma). We are precluded from making this direct satisfactory and conclusive observation in the human body, because there is no accessible part sufficiently thin and transparent for the purpose; but we have cogent reasons in the analogies of life and function—in the composition of the textures and the blood—for concluding, that in man analogous or similar irritants are followed by similar results. This conclusion, drawn from analogy, is substantially corroborated by the fact, that in the human body colorless cells greatly abound in the blood drawn from vessels that are experiencing any irritative or inflammatory action.

But the real nature or meaning of the phenomenon, thus seen in the living vessels of animal structure, and presumed from strong analogies to exist in the human body also, must be interpreted by the result or product; and this clearly proves it to be a phenomenon of nutrition, for the irritated animal textures become thicker, and new layers and new matter appears. So, in the human body, where textures are becoming thickened—where new products and new results are appearing, in pimples, boils, and vesications—in the skin, in scarlet fever, and erysipelas,—colorless cells are exceedingly abundant in the nutrient vessels, sometimes equalling in amount the number of the red cells.

Hence, therefore, it appears, from proofs accumulated on all sides, that the separation of the colorless cells and protoplasma, or lymph of blood, from the red cells, and their distribution in a stationary form over the interior surface of the nutrient vessels, are phenomena of nutrition; and it would further appear, from the cellular or corpuscular nature of pus, and from the ready healing by pressure of wounds discharging pus, that if the colorless elements withdrawn from the blood fail to undergo a conformable metamorphosis, or the cells to deliver up their contents, they change the character of the walls of the vessels, alter the anatomical type of the texture, and subsequently appear in the discharges or secretions, in which case the whole thickness, and the whole of the matter in the walls of the vessels, experience a progressive alteration from within, there being no membranous septum or structureless membrane under these altered conditions, standing as a barrier to the retrograde morphology.

The process of nutrition, here described from observation and experiment, comprises three intelligible and visible stages:—First, the separation of the colorless cells and protoplasma of the blood from the red current; secondly, the metamorphoses of these colorless elements in their progress through the walls of the vessels; and thirdly, the ultimate product which constitutes the permanent form or textural type. The first stage takes place within the vessels, along their interior boundary; the second takes place in, and gives the form of, the elements of the walls of the vessels; and the third, or ultimate product, appears at the outer margin, and is, in fact, an extension of the vascular wall.

These stages of nutrition will be more readily comprehended by referring to the wood engraving in the previous page which represents one half of the diameter of a small blood-vessel in the transparent membrane of a human embryo, at two months—that is to say, in a texture in a state of rapid growth or active metamorphosis. It was copied from the microscope, and is magnified 750 diameters linear. The dark portion, *a*, is one-half of the column of red blood lying in the centre of the vessel; the red cells are many of them nucleated, and larger than in the blood of an adult, and lying obscurely amongst them are several colorless cells, various in dimensions, some very large, and filled with a colorless matter, mixed with molecules. At *b* is a transparent layer of colorless matter or protoplasma, lying between the column of the red blood and the wall of the vessel; in it are seen several colorless cells of various sizes, filled with molecules, also smaller granular particles; and numerous isolated molecules. At *c* is the wall or coat of the vessel, (the prot-uphasma, or first texture), composed of numerous colorless cells or nuclei, embedded in a mass of nascent fibrils, which have, in this example, hardly more coherency than the fibrils of a tough mucus. Granular particles and molecules are seen within these colorless cells or nuclei, and the fibrils pass around and between them. Numerous red cells, of irregular shape, are seen mingled with the colorless elements,—cells, nuclei, and fibrils,—of the vessel's wall or coat; but these have all the appearance of being accidental and due to the manipulation necessary to render the texture a microscopic object. At *d* is a portion of the transparent cellular membrane itself—the parenchyma; it is evidently an extension or expansion of the wall of the vessel, and no unalterable barrier exists to separate it from the protoplasma—every element is in progress of change.

If a section of this vessel were made across it, perpendicular to its axis, we should have a column of blood in the centre, *a*, consisting of red and colorless incoherent cells, suspended in the blood fluid; next to it will be a layer of colorless lymph or protoplasma, *b*, consisting of a viscous matter, mixed with molecules and colorless cells; next to that is the proper coat of the vessel, *c*, the first texture varying with the morphology, and consisting in this case of delicate fibres, interrogated with molecules, granules, and colorless cells or nuclei; and lastly, as an extension of the vascular wall, the proper texture or parenchyma, *d*,—this texture showing what the morphology has been, and the existing vascular wall indicating what it is or will be. A similar section of a vessel that has been irritated in the frog's foot would exhibit the same thing. Hence, then, the conclusion stated in the "First Series of Researches," p. 30, respecting the analogies between active growth and inflammation, is fully borne out by these subsequent investigations.

These things, let it be observed, are not matters of surmise and conjecture, but of demonstration, and cannot, therefore, be set aside because they do not square with received and hypothetical notions. It is very easy to throw discredit upon microscopal facts and conclusions by a flourish of the critical pen, and a flippant style of remark, little suited to the occasion; but Nature marches on, although the critics write, and is ever ready with intelligible answers to those who faithfully interrogate. A florid appeal to existing sympathies may be for a time successful. Warm-hearted spirits contend stoutly for their convictions; and settled opinions are difficult outworks to carry, though Nature herself be battering at the walls. But those who, in the ardor of their defence, merely uphold their own opinions, when truth and science are rolling onward in new directions, must find themselves at last protecting shadows in the rear.

In bringing my observations for verification to the test of the microscope, I would fain remark, that the observer should bear in mind the minuteness and delicacy of those portions of structure that can alone be submitted to high microscopic power, and the unavoidable disturbances that necessarily ensue when it is requisite to take very thin sections, and therefore that decisions pro or con should be based not so much upon the isolated results of one or two hasty trials, but rather on the tenor of the indications derived from a greater number.

In any departure from the law of the nutrition of a texture,—from the law of the morphology,—it must be a very difficult question to determine where the first unconformable step commences, whether in the blood, *a*,—in the lymph or protoplasma, *b*,—in the wall of the vessel, *c*,—or in the texture, *d*? It is very common to read about diseases of the blood, yet all must be dark and unsatisfactory to any one that has observed the relations between the blood and the textures by means of adequate power through the microscope; and certain it is, that no practical conclusions can be established respecting health and disease until the stages of nutrition, the reciprocal actions between the blood and the solid textures, be established. At present, the notorious fact of red blood administering to the rapid increase or deposition of colorless textures, lymph, mucus, and pus, remains, in respect of any well-directed scientific investigation, a glaring instance of theory, hypothesis, and conjecture.—*London Lancet.*

On the Entrance of Coal and other Insoluble Substances from the Intestinal Canal into the Blood. By Professor Oesterlen, in Dorpat.—Charcoal rubbed down into a fine powder, and mixed with water, was given to several animals, chiefly rabbits, for from three to six days. They all swallowed about one ounce. With the exception of blackened fæcal discharges, nothing abnormal was observed during life, and when killed the only unusual appearance discovered was the black color of the intestinal mucous membrane. In all the animals, however, blood taken from the mesenteric vein, the portal vein, as well as the clots found in the right cavities of the heart, in the liver, spleen, and lungs, exhibited on a microscopic examination, minute pieces of charcoal. The size of these varied from 1-300th to 1-60th, and in some instances to 1-42d of a line. They were less numerous in the kidney and blood of the vena cava. The urine and bile contained none. Other animals fed on Berlin blue, gave exactly the same result. Thus there can be no doubt that solid and insoluble substances, after being received into the stomach may enter the mesenteric veins, and through them the general circulation.—*Prof. Oesterlen in Zeitschrift für Rationelle Medizin*, Band 5, Heft 3, 1847.

On the Principle of Vital Affinity, as illustrated by recent Observations in Organic Chemistry. By Dr Allison, Professor of the Practice of Physic in the University of Edinburgh.

The objects of this paper are, *first*, to vindicate the use of the term affinity, and assert the principle which that term is intended to express, viz., that in living bodies ordinary chemical affinities undergo a certain change or modification, either by the addition of affinities peculiar to the living state, or the suspension of some of those which act elsewhere; and, *secondly*, to attempt, from a review of facts recently ascertained, an exposition of the laws, according to which these modifications of ordinary chemical affinities take place, and a discrimination of those changes in living bodies, which may be ascribed to them.

In proof of the first of these points, the author referred particularly to the facts known as to the formation of starch, or its allied compounds, from carbonic acid and water by an action of certain parts of living vegetables under the influence of light, whereby the carbonic acid is decomposed and oxygen evolved; maintaining that this change, essential to the condition of all organized bodies, is so distinctly at variance with the ordinary chemical relations of carbon and oxygen, and even with those that show themselves in other parts of vegetables in the living state, and in all parts in the dead state,—that we are equally bound to regard it as a strictly vital phenomenon, as to the contraction of a muscle on a stimulus; and that we cannot rightly apprehend either phenomenon unless we regard them as dependent on certain laws of vital action or of vitality.

On the second point, he observed, that the physiologist is concerned only with those formations and resolutions of organic compounds which take place in the interior of living bodies, and that, premising that the first introduction of every species of organized being in the world must have been by a miraculous interposition of Divine Power, beyond the limits of scientific inquiry, the objects of investigation in this department of physiology appear to be more definite, and the strictly vital affinities which now operate, from the commencement of the life of vegetables to the death and decomposition of animals, to be fewer and simpler than had generally been supposed.

I. The first kind of action which may be ascribed to vital affinity, he describes as the mere selection and retention, by certain portions of a solid, of certain substances, whether elementary or compound, already existing in a fluid that is brought in contact with it, or what is called by some a chemical filtration. This power is exemplified in living vegetables, particularly in the appropriation by them of some of the earthy and saline matters which are brought to their roots, and the rejection of others; it is more strikingly seen in the development of the lower classes of animals, especially those of the radiata and mollusca, which have horny or earthy integuments; and it is certainly the chief power concerned in all those functions of animals, to which we give the names of absorption, secretion, and even nutrition.

In regard to this simplest form of vital affinity, the following points seem ascertained :—

1. That it is usually, if not always, performed in a perfect organized being, by an attractive agency of living or growing cells, which seem always to perform the double office of extracting from the nourishing fluid the material of their own growth and re-production, and extracting also the fluid or solid matter which they are to contain, or with which they are to be encrusted.

The matters thus consolidated from a fluid in which they previously existed, by a simple process of attraction and increased aggregation, not precipitated by any chemical separation of their component parts, assume the forms peculiar to each organized body to which they are thus added, but retain that peculiarity which in organic matter exists only in fluids,—that the smallest portion of them contains all the chemical ingredients which belong to the mass, and thus any chrystalline arrangement is prevented.

2. That no difference, of form or of composition, can be detected in the different cells of an organized structure, to explain the difference of the matters which they thus extract; and that, in the first development of organized beings, the difference of selecting power exercised at different points of the germinal membrane, appears to be determined by no other condition than their *position*,—just as different portions of nervous matter, differing only in anatomical position, exert perfectly different vital powers, or, in the state of disease, (*e. g.* of inflammation,) peculiar attractions and repulsions appear to exist, for a time, simply at particular spots of the vascular system.

The attractions by which living cells thus appropriate to themselves portions of contiguous fluid, are obviously analogous to those by which even inorganic porous substances attract different fluids with different degrees of force, and thereby produce the phenomena of endosmose and exosmose, but are broadly distinguished from them by the peculiarity of the changes thus effected, by their infinite variety, even in different parts of the same structure, and by their uniformly temporary existence.

II. The actual transformations, or new arrangements of the chemical elements which take place in living bodies, and are peculiar to them, are illustrated by the examples of the formation of starch from water and carbonic acid, oxygen escaping; and of the formation of fat from starch, carbonic acid and water escaping.

It appears to be in the *cells* of organized structures that those transformations are likewise effected; and as the action of cells in simply extracting portions of the nourishing fluid, is analogous to the physical principle of endosmose, so their action in these metamorphoses may be illustrated, but by no means explained, by comparing them to those chemical actions to which the term catalysis is applied.

Two general observations may be made on both these modifications of the power of vital affinity,—*first*, that they obviously *transferred* from the portions of matter already endowed with them, to those which, in the growth of living beings, are added to, or substituted for, those portions of matter; just as muscular fibres already existing, communicate to all the matter which is added to them by the process of nutrition, the same contractile properties which they themselves possess; *secondly*, that every portion of matter to which any such vital properties are imparted, appears to enjoy them only for a short time; losing them so rapidly that a vital process of absorption and excretion is necessary, throughout the whole existence at least of animals, to eliminate from their bodies materials which have lost these properties and reverted to the condition of dead matter.

After stating these general principles regarding vital affinities, the author made some more special remarks on the most fundamental of all the changes in organized beings which may be referred to their action, viz., the formation of starch and its allied compounds from carbonic acid and water under the influence of light, and consequent purification of the atmosphere; and he insisted chiefly on the following points:—

1. That this change is probably gradual; the carbonic acid being taken into the juices of the plant and slowly decomposed there, more or less completely, according to circumstances, whence result not only starch, or its allied compounds, but likewise different organic acids and various oils.

2. That the formation of sugar in plants is probably to be regarded rather as a simply chemical action than a result of vital affinities; or that it is a first product of the decomposition of starch by the agency of water and oxygen.

3. That, on the other hand, the formation of lignin, containing more carbon and less oxygen, from starch or from cellulose, and from the carbonic acid and water brought into the cells, appears to be the result of a strictly vital affinity, strongest at the period of greatest vigor of the plant.

4. That in this, as in other metamorphoses which take place in living beings, and which he proposes farther to examine, the carbon, thus originally fixed on the earth's surface from the atmosphere, appears to be the chief ma-

terial employed by nature for the formation of all organized structures, and to be invested, for that purpose, with peculiar and transient vital affinities; while oxygen hardly appears to exert any chemical powers in living bodies, different from those which it manifests elsewhere; but is taken into the interior of all living bodies, only that it may support the excretions which are continually going on in them, and resolving organized into inorganic matter, and thus that it gradually resumes its power over the carbon which had been temporarily separated from it for the formation of the animated part of creation.—*Proceedings of the Royal Society of Edinburgh*, 1846.

SURGERY.

Diagnosis of a Mercurial Sore.—In a valuable course of lectures on syphilis, Dr. Porter gives the following as the characteristics of the mercurial in contradistinction to the venereal sore:

1. Mercurial sores are not necessarily circular or oval in shape, neither are their edges regularly defined; on the contrary, they vary in these particulars, and assume different forms as they spread: their edges are often quite ragged, loose, and undermined, and their borders are often marked with a thin transparent cuticle, like that of a newly-formed cicatrix, extending quite around them, and giving them a silvery-white appearance.

2. The bases of mercurial sores are not hard, neither are their surfaces covered with the tenaciously-adherent lymph so characteristic of venereal; on the contrary, the surface of the mercurial ulcer may present every variety of shape and appearance, sloughy at one spot, deeply excavated and rapidly ulcerating at another, with exuberant granulations at a third, and exhibiting a tendency to heal at a fourth.

3. But the most striking characteristic of the mercurial ulcer is, its tendency to spread, and the manner in which it enlarges itself. Venereal sores, when not affected by phagedena, increase slowly, and having reached a given size, remain so: the mercurial generally spread quickly, and there seems to be no limit to the size they may possibly attain. I have seen an ulcer as large as my hand in each groin of the same individual. Mercurial sores, too, are easily distinguished from the venereal when they assume an herpetic character, and heal in one part whilst they are spreading in another, which the latter never do. This latter diagnostic is often extremely valuable in ulcers of the throat and on the penis, where any extensive loss of parts may be most sensibly felt during the life of the patient. The mercurial ulceration, too, often attacks the cicatrix of a recently-healed chancre, and a fresh sore is thus formed—a circumstance that does not happen to the true venereal sore, except by some accidental injury, or the application of a new infection.—*Dublin Medical Press.*

Signs of Fracture of the Cervix Femoris.—In allusion to a case recently occurring in the person of a woman, aged 53, M. Velpeau made the following remarks: "Pain and swelling are signs of little consequence, as they may equally exist in fracture or sprain. The impossibility of *raising the heel from the bed* is a sign. It may certainly be present, also, in a painful affection of the joint; but in the fracture of the cervix there is an absolute impossibility of raising the limb, while in this other affection this may be done if the pain be disregarded. Thus, in a luxation, the patient seems at first unable to raise the limb, but he can do so by perseverance. *Eversion of the foot* is not a pathognomic sign, as it may exist in other lesions, *e. g.*, luxation on to the pubis; but in the case of luxation, not only is the limb everted, but neither the patient nor the surgeon can change its direction, while in fracture the surgeon easily turns the foot inwards. There are other affections in which the foot is rotated outwards, as in paralysis, and certain painful affections of the hip. The *admeasurement* of the limb is of great importance, but it is of much more difficult accomplishment than is generally believed. The inclination of the axis of the pelvis, or of the limbs themselves, often gives rise to apparent differences, against which we must be on our guard. We must never depend on mere inspection, but must carefully measure the limb after having placed the patient on his back, and take care that he lean neither to one side nor to the other. In these persons, and in those in whom the bony points are prominent, it is easy enough to measure from the iliac spine to the upper edge of the patella; but there are persons in whom the iliac spine is so rounded off, that we cannot be certain that we are applying the tape upon exactly corresponding points upon the two sides, and an apparent difference, amounting to some lines, may result. So also the patella is not only a fixed point, but its superior angle may be somewhat higher on one side than on the other. In this way several slight errors conjoined may give rise to the belief in a shortening, which has no real existence. By carefully guarding against any obliquity of the pelvis, ascertaining exactly the position of the superior anterior spinous process, and carrying the tape down to the malleolus, instead of the patella, we shall avoid all serious errors."—*Medico-Chirurgical Review, January,* 1847; *from the Gazette des Hopitaux, No.* 68.

Treatment of Stricture of the Urethra by Hydraulic Dilatation.—Mr. Goodman, of Manchester, in a late number of the *Medical Gazette*, relates the following case: A man applied to him for relief, having a stricture in front of the bulb, of old standing. Four months before, a small-sized bougie could with difficulty be passed, and on the time of application to the narrator of the case, total retention had ensued, after drinking freely of beer. An attempt was made to reach the bladder by appropriate bougies, but ineffectually, and it was therefore determined to have recourse to the forcible application of warm water injections to the strictured part. After introducing a gum catheter as far as the stricture, where it was well secured by a band of tape, and compress placed upon the penis to prevent escape, a syringe full of warm water was injected with some force, and was found to pass with tolerable ease. On removing the apparatus the man micturated immediately in a stream about the size of a crow quill. A second application caused a still further increase in the stream of urine, and the patient left, for the time perfectly relieved.—*Provincial Medical and Surgical Journal.*

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

On Etherization.—Since we last noticed this subject, although the inhalation of ether has been practised to a great extent, much of the enthusiasm which at first prevailed respecting it has been dissipated. The occasional unpleasant, and in a few instances even fatal effects which have resulted from its use, have caused a salutary check to the extravagant anticipations which were formed with regard to it. Further experience only can enable us to form correct notions of those circumstances which may render its application warrantable. In the meantime it is our intention to give a short summary of the novel facts which have been elicited in connection with etherization during the past month.

Apparatus and mode of inhalation.—The forms of apparatus invented for inhaling ether are already endless. The desideratum at present is to render them cheap and portable, without destroying their efficiency. The apparatus employed by Professor Simpson completely answers these purposes. (See our report of the Med. Chir. Society, March 3d.) Experience has shown that the inhalation should be so conducted as to produce its full effect as soon as possible, in order to prevent or shorten the period of excitement. With this view a large volume of vapor should be inhaled from the first, the individual should not be disturbed, or the inhalation interrupted, and the ether should be pure.

It has been proved experimentally by Mr. Young, cutler, Edinburgh, on his own person, before the Society of Arts, that so far from their being any danger of explosion during the inhalation, that flame applied to the mouth, and breathed upon, is immediately extinguished.

Physiological effects.—Numerous experiments have been performed on the lower animals by MM. Flourens, Serres, Gruby, Longet, Magendie and others. The same phenomena have for the most part been observed in them as in man. Stupefaction by ether constitutes a convenient mode of depriving animals of sensation, for experiments on the excito-motory system. If pushed too far, however, even this is affected, and death is occasioned. Different degrees of insensibility may be produced, and an action upon the brain proper alone, or combined with this upon the medulla oblongata, and spinal chord, be occasioned according to the extent to which inhalation is carried. According to M. Flourens, ether acts on the nervous centres in the following order:—First, on the cerebral hemisphere; second, on the cerebellum; third, on the spinal chord; lastly on the medulla oblongata, destroying successively intelligence, regular movements, sensibility, and life. Dr. Buchanan, of Glasgow, having pointed out that the blood surcharged with ether is sent directly to the heart and brain, explains the evanescence of its action by comparatively pure blood from the lower regions of the body, succeeding it as soon as the inhalation is stopped. (Paper read to the Philosophical Society of Glasgow.) The peculiar sensations experienced by individuals vary considerably in different cases.

Applications.—The removal of pain during surgical operations still constitutes the chief object of inhalation. Even this application of it, however, has caused perhaps less sensation than that of destroying the pains of childbirth, without interfering with the progress of labor. This fact, first ascertained by Professor Simpson, of Edinburgh, has been confirmed by Professor Paul Dubois, of Paris, and subsequently by several others.*

We are informed by Dr. Simpson that latterly he has ascertained two important points with regard to the use of ether in midwifery. First, its action may be kept up for hours. In one case he had a patient placed for four, and in another for five hours and a half, under its influence before the child was born. When the patients awoke, about thirty or forty minutes after delivery, they were quite unconscious of the birth of their infants, and could scarcely at first be persuaded of the happy result. Both labors had been previously exceedingly tedious. One of the patients had child's head arrested at the brim, and after being above thirty-six hours in labor, was delivered by Dr. S. with the long forceps. Second, the fœtus in utero seems not to be deleteriously affected by even such prolonged etherization of the mother. In these two cases the action of the fœtal heart was carefully watched by Dr. S. with the stethoscope, and did not vary above ten or fifteen beats during the whole time of the etherization. Both children were born alive and well.

Ethereal inhalation has also been tried in several cases of facial neuralgia, inducing insensibility to the painful paroxysms, and sleep which could not otherwise be procured.

Another application has been made by M. Baudens to determine true from feigned diseases in the army. In one case where curvature of the back was simulated, the deformity disappeared during the insensibility caused by ether, and the individual was led to confess the imposture. In another case, a suspected anchylosis of the hip-joint was in the same way proved to be a reality.

Inconvenient effects have frequently resulted from the inhalation. Many of these will be found related by Professor Syme and Dr. Roberts, in our report of the meetings of the Medico-Chirurgical Society of Edinburgh. Great excitement, cough with expectoration of pus, hemoptysis, and convulsions, during the inhalation, have been witnessed by ourselves. In some cases, erratic feelings, and even nymphomania, have been occasioned in females, in others hysterical symptoms, or those of depression or intense headache, which have continued several days. In our last number we noticed the occasional occurrence of alarming sinking, which required vigorous measures to restore the individual. In some cases, the individuals have been thrown into such a state of agitation as to render the performance of the operation impossible.

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* We observe that the paper of Professor Simpson, which we made great exertions to publish in our last number, has been translated entire in the *Union Medicale*, but we regret to say, without any acknowledgment of the source from whence it was originally derived.

Fatal effects have become multiplied. In our last number, one fatal case was noticed, occurring in the Edinburgh Royal Infirmary. . We are informed that there are just now two other cases in which the ether was given, dying of secondary purulent deposits in the same institution.* Is this result the effect of ether? An answer in the affirmative cannot be dicidedly given, but, as we previously stated, all such cases require to be put on record. M. Jobert has brought forward two cases in which he considered death to be partly dependent on the ether. M. Roux has given another of tetanus, in which the patient never rallied from the stupefaction, and where death was decidedly accelerated by it. Mr. Nunn, of Colchester, has recorded a case of lithotomy, which sank without the patient having rallied from the operation; and Dr. Maclagan has mentioned another, occurring in London after amputation of the thigh.

We observe in the Times, an account of an inquest at Grantham, in the County of Lincoln, in a case where an osteo-sarcomatous tumor was removed by Mr. Robbs, surgeon, under the influence of ether. The patient never rallied from the operation, which was in no way severe or prolonged, and the jury found "That the deceased, Ann Parkinson, died from the effects of the vapor of ether, inhaled by her for the purpose of alleviating pain during the removal of a tumor from her left thigh, and not from the effect of the operation, or from any other cause." In the correctness of this verdict the surgeon himself, Mr. Robbs, concurred.

Morbid Appearances.—The morbid appearances which have been found after death, caused hy ether in animals, are similar to those observed in asphyxia, namely, fluidity of the blood, its collection in the right side of the heart and large veins, and engorgement of the internal viscera. In the fatal case of the Royal Infirmary there was found double pneumonia, bronchitis, and secondary purulent deposits in the joints. In the case of Mr. Nunn, cerebral congestion, lungs engorged posteriorly, and uniform fluidity of the blood. In the case at Grantham there was no great congestion, but the blood was fluid throughout. The observations of Amussat and Lassaigne have shown that in every case the blood loses its power of coagulation, although with the exception of the presence of a minute dose of ether, its chemical principles are unchanged.

Claims to the Discovery.—The merit of discovering the application of etherization to removing pain in surgical operations, has been lately claimed by Dr. Wells, of America. He states that he was led to the discovery hy observing that individuals when in state of great excitement, as during battle, or intoxication, never felt the pain of local injuries. He consequently caused the patient to inhale ether, and nitrous oxide gas in several cases, and found that they were thus insensible to the pain of surgical operations. He was led to prefer the nitrous oxide gas for this purpose, from its causing less injurious effects than ether. He communicated his discovery to Drs. Morton and Jackson, who then received it with incredulity. He shortly after left America for Europe, and was much surprised on arriving at Paris to find that those gentlemen had propagated his ideas without any allusion to him.

Since writing the above we have been informed that Professor Syme has abandoned the use of ether in his surgical clinic.—*Lond. and Ed. Monthly Journal, for April,* 1847.

On Etherization.—In our historical notices of the effects resulting from the use of ether, we have endeavored merely to record the facts as they arise.

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* One of these has since expired.

It would seem, however, that the article in our last number has led to some misapprehension. In alluding to the alleged fatal effects of this substance, we thought we had been sufficiently cautious. It was asked, "is this result the effect of ether? an answer in the affirmative cannot be decidedly given, but all such cases require to be put on record." We continue to be of the same opinion, and shall put on record all the fatal cases that occur *after* the employment of ether, being satisfied that it is of the utmost consequence to ascertain whether it be innocuous or occasionally dangerous, and in the latter case, what are the contra-indications to its employment. A correct judgment can only be formed by further experience and multiplied observations. We deprecate alike the excessive enthusiasm which insists that under no possible circumstances, ether can be, or ever has been prejudicial, and the unreasonable timidity which prevents the employment of a useful agent, because, in a few cases, injurious effects have been apparently occasioned by it.

During the past month Etherization has been extensively practised, but few novelties have been published with respect to it. Its advantages and applications are still debated at the meetings of the Academy of Sciences and the Academy of Medicine in Paris. We observe, however, that the cases noticed in our last number have produced an effect on the warmest advocates of inhalation. Even MM. Velpeau and Roux, though still maintaining its great advantages, now speak of the necessity of caution in its use. This is as it should be.

The third case to which we alluded, as likely to be fatal *after* the use of ether, in the Royal Infirmary, has since expired. It was a case of tibio-tarsal amputation, under the care of Mr. Syme. A girl, aged 14, of good general health, was affected with caries of the tarsal bones, and fistulous openings leading from them. The amputation was performed in the usual manner on the 24th of February, without the slightest pain, the ether having produced its full effect. She died April 5. On dissection the blood was found unusually fluid, and secondary purulent deposits existed in the lungs, left kidney, right knee, and left hip-joint. Such are the *facts*. As to whether death in this, or the other two Infirmary cases, resulted from the etherization, that is a matter of *opinion*. Some say no, others yes. It is the first fatal case of tarsal amputation which has occurred in Mr. Syme's practice, and it is only right to state that in his opinion it is attributable to the ether. The observation of other cases will sooner or later decide the point.

Applications.—In the case of a young man, aged 23 years, subject for some years to epileptic attacks, which returned every 15 days, M. de Rabodanges caused ether to be inhaled, the evening before the day on which the attack was expected, with the result of preventing it. (*L'Union Medicale*, No. 42.) M. Marc Dupuy has injected large doses of ether into the rectum of two dogs, and found that in this way it will cause perfect loss of sensation. Slight inflammation of the mucous membrane was produced in one case. (*Ibid*, No. 24.) M. Stolz, of Strasburgh, has published a case of turning, in which he met with considerable resistance, in endeavoring to pass his hand into the uterus, notwithstanding the complete insensibility of the patient, by means of ether. He concludes from it that ether in no way facilitates the turning or extraction of the fœtus. (*Gazette Med. de Strasbourgh*, Mars, 1847.)—*Monthly Jour. of Med. Science.* (*July.*)

Ether.—The last No. (*Aug.*) of the "Dublin Quarterly Journal," just received, remarks as follows:—

"We regret to say that our fears with respect to the general employment of this agent, (ether,) contained in our last No., have in several instances been verified. Several deaths, caused either directly or hastened by the inhalation of sulphuric ether, have lately been recorded, and the journals that were at first loudest in its praise have recently assumed a very cautious tone on the subject." (Page 554.)

Land Scurvy in Great Britain.—It is stated in a late number of the London Medical Gazette, that land scurvy is becoming prevalent in various parts of Great Britain. A great many cases, with the features resembling those of sea-scurvy well marked, have been lately brought into the Edinburgh Infirmary. The patients had been laborers on railways, living on bad diet, and working on moors far from villages, so that they were not able to procure milk or vegetables, or even the common conveniences for cooking their food. It is singular that, owing, as it appears, to the great dearth of vegetable food, a disease which has been long extinct in the navy, is now making its appearance on land. The deaths from purpura registered last week in the metropolis were 5· against a spring average of 0·4.

Fever in Liverpool.—It appears from official documents that since the 15th of January [about four months] there have arrived in Liverpool no less than 180,000 Irish paupers; some of these had emigrated to various parts of the country, but about 80,000 still remained in addition to the ordinary population. The petition lately addressed to the House of Commons informs us that

"Some of the immigrants come over in a state of actual infectious disease, and a large number of them so predisposed to it that they fall sick shortly after their arrival, and so spread and propagate disease and death among an otherwise healthy population. That the consequences are most disastrous and alarming to the people,—dysentery, diarrhœa, small-pox, and typhus abound. Three of the relieving officers have already died of typhus fever, and two now lie dangerously ill; one of the medical officers is dead, and another is ill; one of the nurses of the Lying-in Hospital is dead, and another is ill. No less than 654 paupers have been buried in the Workhouse Cemetery within the last month, the average number of interments during the last twelve years being only 1367 annually; so that *in one month the interments have nearly equalled half the number they usually amount to in one whole year.*"—*London Med. Gaz.*

MATERIA MEDICA.

Nitrate of Silver, in the form of Compound Powder, in Chronic Discharges from the Ear.—The difficulty of applying nitrate of silver in the solid form, or in the form of solution, to the tube of the external ear, led M. Bonnafont, a considerable time since, to contrive a powder, which, in cases of chronic discharge from the organ, might be blown in. His formula directs equal parts of fused nitrate of silver, talc of Venice, and lycopodium powder, thoroughly pulverized. He affirms, that with certain precautions as to the previous cleansing of the meatus from purulent matter, and the like, this treatment is of the greatest service.—*Bulletin de Thérapeutique*, and *Gazette Médicale de Paris*, 13 Mars, 1847.

On the Use of Muriate of Morphine in Toothache, Frontal Neuralgia, and Neuralgia of the Fifth Pair of Nerves.—M. Ebrard has always found toothache yield, in from half an hour to two hours, after friction of the gum on the affected side with muriate of morphine in powder. The first friction should be performed in the evening, at least three hours after the last meal, unless the severity of the pain prohibits delay. The patient should take a quarter of a grain of the salt on one of the fingers, previously moistened; rub it gently on the gum for about three minutes, then incline the head towards the affected side, avoid spitting or swallowing the saliva, so as to favor the contact of the salt with the affected part, and maintain this position for at least ten minutes. This process should be repeated in two hours if relief is not obtained. Should the pain return the day following, the application should be repeated. Half or three-quarters of a grain of the salt may be employed if necessary. The friction should not be repeated if headache, disposition to sleep, etc., occur.

When neuralgia occupies the forehead or any immediately adjacent situation, M. Ebrard recommends from a quarter of a grain to a grain of muriate of morphine to be snuffed up the nostril on the affected side daily. It is advisable to previously make use of an emollient fumigation, which cleanses the Schneiderian membrane, and facilitates absorption.—*Gazette Medicale.*

On the Cutaneous Eruptions Induced by Various Medicinal Substances.—*Opium.*—The eruptions which in certain individuals follow the use of the preparations of opium are always of an exanthematous nature. In general they consist of red isolated patches not unlike those of measles. This kind of eruption is rare.

The *solaneæ.*—The eruption induced by the ingestion of the preparation of this tribe of plants are also of the order exanthemata, and are as uncommon as those which are the effect of opium. The patches are larger and irregular, resembling scarlatina.

The *oleo-resins.*—All the medicinal substances of this class are liable to be followed by cutaneous eruptions, but none so frequently as turpentine and copaiba. The eruption very much resembles that produced by opium and belladonna, being sometimes measly, at other times scarlatinous in its appearance. It is a rare exception to see either vesicles, pustules, or papules.

Cod-liver oil.—This medicine sometimes gives rise to a form of eczema, which appears generally about the fifth day from the commencement of its use; it is, however, rarely observed.

Iodide of potassium.—The eruptions which follow the use of this medicine are far from uniform, sometimes being eczematous, at others pustular, as in acne. It sometimes happens that the skin escapes the action of the medicine, and that the mucous membranes are attacked instead; in such cases we observe coryza and conjunctivitis, which cease as soon as its use is suspended, but which will not yield to topical treatment as long as the medicine is persisted in.

The discrimination of the cutaneous affections which are induced by different medicinal substances taken internally, is of no slight practical importance; we have seen ignorance of these characters and causes give rise to very unpleasant mistakes.—*From Annuaire de Therapeutique, in Provincial Journal.*

A mode of Resuscitating Patients after Inhaling the Vapor of Ether.—Sir,—For the last week I have been using, as a means of resuscitating patients, after inhaling the vapor of ether, pure oxygen gas, with the most perfect success. To-day, I operated in nine cases on the teeth: to each patient I gave a full dose of the ether vapor, and subsequently a few inhalations of oxygen. In not one case did the patient complain of debility, and all recovered perfectly in less than a minute and a half, timed by the medical men present. I will, by your permission, in a future number of your journal, furnish the details of these and other experiments with oxygen.—I remain, etc.,

JAMES ROBINSON.

Gower street, Bedford square, March, 1847.—*Lancet.*

On the Effects of Ether on different Classes of Animals. Read before the South London Medical Society, by DR. GULL.—The following is an abstract of the principal facts.

If a mammal or bird be made to inspire atmospheric air strongly impregnated with ether vapor, in from sixty to ninety seconds its muscular power is lost; it becomes totally insensible to pain; its respiration becomes slow and irregular in rhythm; the venous blood is of a vermilion color: the heart beats with great rapidity; its rhythm is irregular, and its force diminished. If the experiment be made with a frog, the effect is produced in nearly the same time: considering, therefore, the slowness of its respiratory movement, the mixed nature of its circulating currents, and the lowness of its temperature, it becomes more rapidly affected than a mammal or bird. The state of etherization, when induced, is also more perfect and lasting than in warm-blooded animals, the respiratory movements in frogs being often arrested for six or seven minutes. Alcohol vapor produces similar effects;—they are slower in their accession, and more lasting in their effects—often fatal.

An increased flow of saliva is one of the ordinary effects of the inhalation of ether; this was observed in man, in cats, mice and birds. The irregularity of the muscular movements which come on amongst the early effects of etherization, do not seem to depend so much upon want of muscular power as upon a loss of muscular sense; that is, the power of appreciating the force of the muscular contraction, and the exact locality of the limb.

The phenomena produced by the inhalation of ether vapor are allied to those which result from alcoholic drunkenness; the former are more transitory, and more speedily induced. If drunkenness either by ether or alcohol is extreme, it will terminate in asphyxia. Some of the phenomena of ether drunkenness are induced by concussion. In both states the surface is often cold, pulse irregular and frequent, respiration irregular in rhythm and force; no recollection of occurrences during the stage of concussion or etherization; memory of events long past wonderfully recalled both by concussion and etherization. Ether in some persons produces extreme faintness and sickness, with trembling and paleness; concussion does the same. In concussion as in etherization, patients are occasionally violent, swearing and manifesting the phenomena of drunkenness.

It has been considered a remarkable fact that by the inhalation of ether, common sensation should be lost, whilst the senses of hearing and seeing are so little impaired; such a state is occasionally observed in nervous exhaustion alone: two classes of such cases might be enumerated—bilious disorders, and after venereal excesses. In such cases the gait and other muscular movements may be awkward, arising from this diminution of sensation only, and not from muscular weakness.

The phenomena arising during the inhalation of ether are not at all dependent upon supercarbonization of the blood. Frogs are rapidly affected by ether vapor, whilst they may be kept for hours in hydrogen and nitrogen without injury. Pure ether vapor killed a bird past recovery in twenty-five seconds. Ether probably permeates every tissue, but acts most upon the nervous, on account of its physical constitution, the grey substance of the brain containing 4·5 per cent., the medullary substance 14·5 per cent. of fatty matter. The irritability of muscular fibre of frogs is not evidently diminished by ether. Ether probably produces its effects by direct action on the tissues, independently of the quantity of blood in the part. The first effect seems to be an increase of the function, or stimulation; whether this is followed by an increased supply of blood, according to the prevalent law of nutrition, it is not easy to say. If the action of the ether vapor be continued, a loss of function follows, or what is termed its *sedative* effect; this may be the cause of death, or the function of respiration may in the higher animals be depressed for so long a time, that asphyxia may come on. Congestion is not a direct result of the action of ether vapor on the brain, but, as in ordinary alcoholic drunkenness, so in ether drunkenness, asphyxia may be induced, and death follow.

Effects of ether on the blood.—The rigor mortis is well marked in animals killed by ether vapor. The blood has a strong odor of ether. After the inhalation of ether it may be detected in the breath for thirty-six or forty-eight hours Blood drawn from a vein whilst the animal is fully under the influence of ether, has a vermillion color, and coagulates firmly. The formation of the glohules is unchanged.

All other things being equal, it is probable that the fitness of a patient for the inhalation of ether, if that should be desirable, would be determined with more certainty by observations on the nervous system; vascular plethora by no means so far contra-indicating its use as a feeble nervous system. This opinion is based on the known effects of ether on man and the lower animals, especially the cold-blooded. Frogs, when fully under the effects of ether, are yet strongly affected by a single galvanic current, as may he proved by laying the animal so affected on a glass plate, and placing a shilling under the lower part of the spine, and a plate of zinc under the head, and connecting them with a copper wire.

Equal parts of ether vapor and oxygen gas produce a compound as rapidly-fatal as ether vapor only. If an animal be etherized and then made to respire oxygen, it does not recover more speedily than if it merely respired atmospheric air. In many cases the respiration of oxygen after ether retards recovery, and in some is rapidly fatal, death following at once on the respiration of oxygen. These results were proved in birds, which breathed oxygen for several minutes without injury. Oxygen, therefore, is not an antidote to the ether vapor. Nitrous oxide gave results similar to those of oxygen.

It is an error to suppose that the action of ether is necessarily allied to asphyxia.

Most of the above statements were verified at the meeting by experiments on animals. The author ended his communication by the following queries upon the surgical employment of ether:

1st, Is it useful to abolish pain during a surgical operation?
2d, Can this be done safely by ether?
3d, Does the presence of ether in the blood modify the healing process?

In answer to Dr. Munk, the author stated that, if immersed in pure oxygen gas for a short time, the animal would be merely excited, no other effect being produced.

Mr. Benjamin Travers, junior, remarked, that the proximate as well as immediate effects should not be overlooked, as he believed the effects of ether were progressive, and that a man having been under its influence might die in the course of five days as well as of twenty-four hours. He had known a limb five days after death smell strongly of the ether, the stump having become gangrenous. He believed it to be a poisonous and dangerous remedy, attended with the greatest risk, and requiring the most profound caution in its use.

Mr. Bransby Cooper, in reference to Dr. Gull's question—whether it was right in operations to alleviate or prevent pain, provided it could be done with perfect safety—remarked, that pain was a premonitory condition, no doubt fitting parts the subject of lesions to reparatory action, and therefore he should feel averse to the prevention of it. In parts operated upon under the influence of ether, there was no muscular contraction, no retraction of the larger vessels, and the small ones continued bleeding; he alluded to a case of lithotomy under the influence of ether. The operating surgeon remarked that, with the exception of the flow of hlood, it was like cutting through dead flesh; the parts fell, as it were, asunder, and the sensations were quite different on passing the finger into the bladder. Dr. Gull's paper had more than ever convinced him that it was a poison, and unless other experiments proved it harmless, he should give his decided opinion against its use.

After some observations by the author on the interchange of particles in mixing gases, and their effects, it was moved by Dr. Barlow, seconded by Dr. Munk, and agreed, that as the time of the society had expired, the discussion on the author's paper be resumed at the next meeting of the society, on April 29.—*London Medical Gazette.*

TOXICOLOGY.

Magnesia in the Treatment of Poisoning by Arsenic.—At the sitting of the French Academy of Sciences, 18th May, M. Bussy presented a note on the use of magnesia in poisoning by arsenic. The results of his paper are as follows:—

1. That purified animal charcoal, recently proposed against poisoning by arsenious acid, cannot be employed successfully for that purpose.

2. That magnesia, in a state of purity, but not strongly calcined, readily absorbs arsenious acid in solution, and forms with it a compound insoluble even in boiling water.

3. That in the gelatinous state it still more readily absorbs the poison.

4. That animals which have been forced to swallow arsenic uniformly escape when made to take a sufficient quantity of magnesia.

5. That this antidote has, over every other known or in use, the advantage of being found at hand in all the shops; that it readily and completely neutralizes the poison; that it can be given in large quantity without inconvenience; and that its general effects on the system coincide with the indications of treatment to be fulfilled under the operation of the poison.

6. That magnesia decomposes emetic tartar, the salts of copper, corrosive sublimate, and that there is reason to believe it might be successfully employed to counteract and destroy the effects of these poisonous substances, and of metallic salts in general.

7. That the salts of the organic alkalies, morphia, strychnia, etc., being also decomposed by magnesia, the use of that substance, in the case of poisoning with organic products, owing their activity to the presence of vegetable alkalies, might be the means of impeding and retarding the absorption of the poison. This conjecture the author reserves for verification by farther trials. —*Gazette Médicale de Paris*, 23d Mai, 1846.

MISCELLANEA.

[*A new plan of organization for the medical profession in France has recently been presented by the French minister to the Chamber of Peers, and will soon be established—we present the leading features of the new Reform Bill.*]

Art. 1. *Registration and definition of practitioners—Punishment for illegal practice.*—No person will henceforth be permitted to practise medicine in France unless he has a regular diploma of Doctor of Medicine, and has registered the same both with the secretary of the Academy and in a Government office. No person can receive the degree of doctor of medicine until he has been admitted a bachelor of letters or of arts, and has gone through the course of study prescribed by the law. Every French graduate who has received the diploma of doctor from a French faculty, and has duly registered his name, may practise freely in all parts of the kingdom, and he is at liberty to take the title of physician or surgeon at his option. Whosoever shall assume either of these titles, or call himself "doctor," without having acquired the title in a regular and lawful manner, shall be summarily punished by an imprisonment of from six months to two years. A repetition of the offence shall be followed by a punishment of from two to five years.

Art. 2. *Rights and privileges of foreign graduates.*—No foreign graduate, whether he be a Frenchman or a foreigner, will be henceforth permitted to practise in France, except by the license of the Crown, to be granted on proof of equal value in the foreign degree and diploma, as determined by the Royal Council of the University; the said diploma to be registered according to the provisions of Art. 1. With respect to foreigners, this permission to practise may be at any time withdrawn; and it may be restricted to practice in one particular district, or among the countrymen of the practitioner. He who holds a foreign diploma must call himself by his foreign title—Doctor of the University of ———, and physician, or surgeon (étranger). A foreigner who in his own country has gone through a course of study which may appear satisfactory to the Royal Council of the University, will be permitted to graduate in France, and to exercise, upon similar conditions, all the rights and privileges of French graduates. The same rules will apply to Frenchmen who have studied in foreign countries. The practice of medicine, or of any of its branches, contrary to the provisions of this article, shall be punished by imprisonment, as mentioned in Art. 1.

Art. 3. The Officers de Santé who have been regularly admitted according to the law of the 10th March, 1803, may continue to practise medicine according to the terms of the commission granted to them. If they assume any other title, they will be liable to imprisonment according to the terms of the previous articles.

Clinical Instruction in Germany.—Clinical instruction in Germany is given under various distinct forms, of which the *Internal clinic*, and what has been designated the *External*, are the most considerable. Not having ourselves witnessed the former of these, which ceases during the vacation, we shall supply a short abridgement of the account given by the graphic pen of Dr. Mackenzie, who himself has so much improved the advantages it presents. The visit in the medical clinic occupied one hour every morning. The assistant, who is a graduate, and is styled the *Secundarius*, regularly follows the visit, and, along with those students who choose to attend, visits again in the evening. The duties of the *candidati assistentes*, or students who have the care of the patients, consist in examining the particular patient committed to their care publicly on his admission, and again at every visit; in writing out a *historia morbi*, and in keeping a careful journal of the symptoms and treatment. These cases are not written in a short and imperfect manner; but contain a faithful and minute account of the state of the patients at the last morning visit, at noon, and at evening, with observations in regard to the diagnosis, prognosis, and treatment. The reports are written in Latin, are publicly read at the bed-side, and on the dismission of the patient are delivered to the professor.

The hospital accommodation for the Ophthalmic clinic consists of what is called the *auditorium*, a kind of reception hall into which the new patients are received, and where the professors and students assemble, and of two wards each containing twelve beds. The auditorium is well lighted, and colored green. The windows are so supplied with shutters and curtains that the light can be in an instant increased or diminished. It affords accommodation during lectures for 150 students, and has a portion of an oval form slightly raised, called the cathedra, whence the lectures are delivered, and where the operations are performed, being large enough to contain a patient, along with the professor, the assistant, and the pupil, to whose care the patient is entrusted. Each of the wards, one for males and another for females, is about the size of the auditorium, is also colored green, and contains twelve beds. Frank, at Pavia, had rarely above eighteen patients in his medical clinic; and it is important to note that this limited number is essential to the success of the system.

The instruction in the ophthalmic, as in the other clinics, is continued uninterruptedly for ten months. The lectures on practical ophthalmology are delivered every morning, Saturdays and Sundays excepted, from ten to eleven o'clock, comprising first the anatomy and physiology of the eye; then a few lectures on the manner in which the eye should be examined; next on the pathology of the organ, and the medical and surgical treatment of its diseases, the whole concluding with the history of Ophthalmology. Daily, again, from eleven o'clock to twelve, Saturdays and Sundays included, the strictly practical instructions are given, partly at the bed-sides of the patients, and partly in the review of the out-patients who apply for relief. Every new and interesting patient, whether he is to remain or immediately to depart, is brought into the auditorium, and placed in the cathedra. One of the students now presents himself as the assistant or ordinarius for the patient, and undertakes the examination of the case under the correction of the professor.

This last statement brings into view what is called the *External clinic*, and which consists of nothing more than the adaptation of the clinical method of instruction to the treatment of the out-door patients of an hospital,—the number, at the same time, being kept small. With the existence of an hospital, however, it has no necessary connection, as it may often be witnessed in operation, when the internal clinic, as during vacation, is closed. In these latter circumstances, again, it corresponds in many particulars with our dispensaries, and might most readily and advantageously, with a little management, be carried on in some of these institutions. In the north of Germany this system is usually designated by the name of *Polyclinic*, as the number of out-patients who present themselves usually much exceeds the number of in-patients; whilst another name it receives is that of *Ambulatorium*, from the applicants making it their business to come at regular hours, and retiring again as soon as their prescriptions are prepared, and their medicines delivered. Professor Chelius informs us, that at Heidelberg a list of the students who engaged in this duty was kept, and that they took the patients which presented themselves, very much in rotation, the privilege being restricted to those who were considered equal to the responsibility. With a new patient, the *Ordinarius* next in turn presents himself before the professor and his fellow-students. He immediately commences his examination; the professor, at the same time, by such inquiries as he deems necessary, satisfying himself of the nature of the case; the bystanders also examining for themselves, and narrowly observing all that passes. This done, the professor demands of the ordinarius the nature of the complaint before them; and, if a wrong answer is given, tries, by some leading question or hint, to make the pupil correct himself. The disease at length ascertained, interrogatories are put respecting the diagnosis, prognosis, and *methodus medendi*, and the treatment to be adopted being agreed upon, the assistant withdraws the patient from the circle, so making room for a fresh case. He then enters the name of his patient in the register, with the name of the disease, the prescriptions, etc.; and furnishes the patient with the recipes for the various medicines he orders, previously bringing them to the professor, who, on finding them correct, or animadverting upon them when necessary, signs them for the apothecary. If the case be surgical, and requires dressing, or some minor operation, this is immediately done, sometimes by the professor, and often by the pupil under his eye. At all future visits, the same student continues to take charge of the same patient, and thus watches over all the phases of the disorder for better or for worse.

In addition to these two principal clinics, Internal and External, a third must be added, which has very properly received the name of *House clinic*. It owes its origin to the fact, that most of the ophthalmic professors in Vienna are in the habit of having, in their own dwellings, a set hour for the reception of patients among the middle and humbler classes of society, to which their private pupils always have free access, and to which strangers are usually invited. Many of the less severe diseases of the eye may here be observed; the professor's treatment is fully exemplified, and many hints, and much familiar advice is supplied.

One other mode of instruction which prevails at the Vienna school, though not strictly belonging to the category, must not be passed over, known by the name of *Privatissima*. The ophthalmic privatissimum consists of a short course of the operative surgery of the eye upon the dead subject, wherein the professor performs the different operations, and explains, as he goes along, every step and minute point in their performance, after which he directs the pupil in the repetition of each of them. After attending one of these private courses, the pupil is allowed to operate upon the living subject. Each class of this most useful instruction is confined to about six pupils, and the most eminent professors of the art, such as Rosas, Jäger, and their assistants, are now in the habit of conducting them.

The practical results of this system of instruction are altogether such as a careful study and examination of it would naturally lead us to anticipate. Hence, respecting ophthalmology, it is a fact, that from this school there has emanated a host of men who have trodden in the footsteps, and many of whom in every way rival the high character of their respected masters, and who now, in their turn, and in other spheres, have become centres of attraction and information. Thus the benefit has been spread very generally over Germany. It is in this way, that we almost everywhere find names that are highly venerated in the science,—names such as Fischer at Prague, Walther, Schlagintweit, and Stromeyer at Munich, Chelius at Heidelberg, Von Ammon at Dresden, Ritterich at Leipsic, Jüngden at Berlin, and many others it would be tedious to enumerate. Hence the high and forward state of the science in that country, and the great number of expert and accomplished oculists. And passing from this to the other practical branches of the healing art, whenever this clinical system is brought into operation, there the best results are found to follow. It is useful not more to the taught than to the teacher; and witnessing it with delight, in daily and active operation, at such places as Bonn, Heidelberg, Vienna and Berlin, under the most experienced and sagacious professors, we could not repress the wish that it should be forthwith introduced wherever good and substantial education was desiderated for the credit of the profession, and the well-being of the community.—*Edin. Med. and Surg. Journal.*

OBITUARY.

With sorrow we insert the following notice of the death of our esteemed young friend, whose gentle manners endeared him to those who knew him, and whose zeal and abilities must, had his life been spared, have led him to distinction and usefulness in his profession. Phthisis, too often the attendant upon intellectual activity, prematurely closed his brief, but bright and promising career.—*Annalist.*

Died, of Consumption, at the age of 22, on Sunday morning, 1st inst , Dr. Charles H. Stacey, Curator of the Museum of the College of Physicians and Surgeons, and one of its most promising pupils. From his fourteenth year he was engaged in medical pursuits, and had acquired unusual professional attainments. Before he was nineteen he had made an anatomical discovery, and had operated for cataract with success, and in a manner evincing much manual dexterity. He was considered the best anatomist in his class, and he was an ardent lover of other branches of his profession. By his untimely death his friends have lost an affectionate companion, the medical profession a promising member, and society a most promising ornament.

At West Hoboken, N. J., on the 8th inst., of Bronchitis, Wm. P. Wilson, M. D. He was Surgeon in the U. S. Army during the Florida campaign, and for several years a practitioner of medicine in the state of Georgia, (Savannah).

At Montreal, Canada, Dr. Fred. Cushing, a victim to his zeal among the sick emigrants ; a most estimable physician and benevolent man.

At Montreal, on the 15th of July, Dr. Bernard M'Gall, aged 45, from Typhus Fever, contracted in the performance of his duties as one of the medical attendants at the Emigrant sheds, Griffintown.

At Toronto, on the 16th July, Geo. R. Grosett, M. D., principal physician of the Emigrant Hospital at Toronto.

At Vercheres, Canada, on the 22d July, Alfred Malhiot, M. D., of Typhus Fever, contracted also by attendance upon the Emigrants.

At Tampico, August 7th, Dr. Hawkins, of Baltimore, of Yellow Fever.

At Taunton, Mass., Dr. A. S. Baylies, 32.

At Cairo, N. Y., Dr. Gordon Huntington, 74.

At Durham, N. H., Dr. J. Ingalls, 79.

At Augusta, Me., Dr. E. S. Tappan, 65.

At Newbury, Mass., Dr. Ebenezer Hale, jr., 38.

At Lawrenceville, N. J., Dr. Joseph Phillips, 81, formerly Surgeon U. S. Army.

At Manchester, Eng., John Walker, Esq., Surgeon to the Manchester Eye Hospital, and author of the Oculist's Vademecum, 44.

As our last form goes to press, we have barely room to announce, which we do with sincerest regret, the death of Dr. James A. Washington of this city, who died on the 29th of August, of an attack of peritonitis, after an illness of four days. In our next No., we shall endeavor to do some justice to his many excellent qualities as a physician and a man ; at present, we can only record his sudden and unexpected demise, and mingle our tears with those who lament his loss.

"What shadows we are, and what shadows we pursue!

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TO READERS AND CORRESPONDENTS.

The indulgence of our readers is solicited for the delay in the publication of the present No. of the Journal. Hereafter punctuality may be expected.

The article on the Indigenous Medical Botany of the State, by the Editor, will be concluded in the January No.

We have received articles from Drs. Bryan, Payne, Dowell, Lawton, Gunn, Varick, and others, all of which will appear in our next number. It will be observed that the original department of this number is unusually lengthy; this, together with the index, has necessarily limited the selection of foreign matter. In future we shall devote more room than heretofore to the "Foreign Medical Intelligence."

The following works have been received since our last:

A New Medical Dictionary, containing an explanation of the terms in Anatomy, Human and Comparative Physiology, Practice of Medicine, Obstetrics, Surgery, Therapeutics, Materia Medica, Pharmacy, Chemistry, Botany, Natural Philosophy, with the Formulas of the Principal Pharmacopœias, and valuable articles on the Treatment of Diseases: On the basis of Hooper and Grant. Adapted to the present state of Science, and for the use of Medical Students and the Profession. By D. Pereira Gardner, M. D., Prof. of Chemistry and Medical Jurisprudence in the Philadelphia College of Medicine, formerly Prof. of Chemistry, etc., in Hampden Sidney College, Corresponding Member of the Lyceum of Natural History of New York, etc., etc. 8vo., pp. 686. New York: Harper & Brothers. 1847. (From the Publishers.)

Principles of Human Physiology, with their Chief Applications to Pathology, Hygiene and Forensic Medicine. By William B. Carpenter, M. D., F. R. S., Fullerian Professor of Physiology in the Royal Institution of Great Britain, etc., etc. Third American from the last London edition. With Notes and Additions. By Meredith Clymer, M. D., Consulting Physician to the Philadelphia Hospital, etc., etc. With three hundred and seventeen wood-cuts and other Illustrations. 8vo., pp. 752. Philadelphia: Lee & Blanchard. 1847. (From the Publishers.)

The American Medical Almanac for 1848. Containing Statistics of the various Medical Colleges, Hospitals, Dispensaries, etc., of the United States; together with other information of value to the Physician and Student. 12mo., pp. 224. Philadelphia: Lindsay & Blakiston. (From the Publishers.)

Lectures on the Principles and Practice of Physic. By Thomas Watson, M. D. With Notes, by D. F. Condie, M. D. Third edition. 1 vol., 8vo. 1847. Lee & Blanchard. Philadelphia. (From the Publishers.)

A System of Surgery. By J. McChelius, Doctor in Medicine and Surgery, Public Professor of General and Ophthalmic Clinic in the University of Heidelberg, etc., etc. Translated from the German, and accompanied with Additional Notes and Observations. By John F. South, late Prof. of Surgery to the Royal College of Surgeons, England, etc., etc. In three large vols., pp. 640, 586, 942. Philadelphia: Lee & Blanchard. 1847. (From the Publishers.)

Observations on the Poisonous Qualities of the Sulphate of Quinine. By William D. Baldwin, M. D., of Montgomery, Ala. 8vo., pp. 22. 1847.

Criticisms and Controversies relating to the Nervous and Muscular Systems. By Bennet Dowler, M. D., of New Orleans. (From the N. O. Med. and Sur. Jour., Sept., 1847.) 8vo., pp. 36. New Orleans. 1847.

A Text Book on Natural Philosophy, for the use of Schools and Colleges, containing the most recent Discoveries and Facts, compiled from the best authorities. By John W. Draper, M. D., Prof. of Chemistry in the University of New York, etc. With nearly 400 Illustrations. 12mo., pp. 381. New York: Harper & Brothers. 1847. (From the Publishers.)

Wood's Quarterly Retrospect of American and Foreign Practical Medicine and Surgery. Vol. I., No. 1. 8vo., pp. 64. R. & Geo. S. Wood. New York. 1848. (From the Publishers.)

Several other works have been received, which will be noticed in our next.

The following Journals have been received in Exchange:—

The London Medical Gazette.
The British and Foreign Medical Review.
The Provincial Medical and Surgical Journal.
The Dublin Medical Press.
The Dublin Quarterly Journal of Medical Science.
The London and Edinburgh Monthly Journal of Medical Science.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Philadelphia Medical Examiner.
The Southern Journal of Medical Science.
The British American Journal of Medical and Physical Science.
The Southern Journal of Medicine and Pharmacy.
The American Journal of Pharmacy.
The American Journal and Library of Dental Science.
The Buffalo Medical and Surgical Journal.
The New-York Annalist.
Western Lancet.
Missouri Medical and Surgical Journal.
Stockton's Dental Intelligencer.
La Lancette Canadienne, Journal Medico-Chirurgical.

THE NEW-YORK

JOURNAL OF MEDICINE.

FOR NOVEMBER, 1847.

PART FIRST.

Original Communications.

ART. I.—*A Catalogue of the principal known Medicinal Plants, native and exotic, growing in the State of New-York, with brief Notes on their Composition, Properties, etc.* By the EDITOR. (*Continued.*)

DIVISION I.—FLOWERING OR PHENOGAMOUS PLANTS.

CLASS I.—EXOGENOUS PLANTS.

SUB-CLASS I.—POLYPETALOUS EXOGENOUS PLANTS.

NATURAL ORDERS.

LEGUMINOSÆ, *Linn.*—(THE BEAN TRIBE.)

VICIA, four species, two exotic and two indigenous. Cultivated in Europe as herbage for cattle, under the names of *Winter* and *Summer Tare.*

PHASEOLUS,[*] *Linn.*, (Kidney Bean.) Three wild indigenous species. PERENNIS; DIVERSIFOLIUS; HELVOLUS. PH. VULGARIS, *Linn.*, (Kidney Bean. Pole Bean.) LUNATUS, (Lima Bean.) Cultivated for the table. Less nutrient and flatulent than peas, and the ordinary white beans. Chiefly employed in the young and green state of their legumina. The substance when boiled is of the oleraceous kind; but though sweeter and more nutrient than these, is still tender and easily digested.

APIOS,[†] *Boerh.*, (Ground Nut.) TUBEROSA. (Sometimes called Wild Bean.) Root produces fleshy *tubers*, about the size of chestnuts, which are esculent and nutritious, for which the plant is supposed worthy of culture. Legume about two inches long.

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[*] Latin, *phaseolus*, a little boat, from the shape of the legumes.

[†] Greek, *apios*, a pear—form of root.

Amphicarpea[*] Monoica, *Torr. and Gr.*, (Common Hog Nut.) A very curious plant. Root fibrous and branching. Nutritious. Annually producing numerous small subterraneous flowers. (Torrey.)

Robinia Pseudacacia, *Linn.*, (Common Locust Tree.) The inner bark is sometimes used for emetic purposes. The wood is one of the most valuable for many purposes in the arts. When newly cut, it weighs 63 pounds 3 ounces to a cubic foot; when dry, 46 pounds. The wood is remarkable for strength and durability; hence much employed in ship-building, and for posts, and underground structures. The tree is very apt to be destroyed by the *Clytus Pictus*, and the *Cassus Robinia.* (Locust-tree Carpenter Moth.) (See *Peck*, in *Mass. Agricult Rep. and Jour.*, Vol. V.) The leaves are a good substitute for grass and clover as provender for cattle, for which it is cultivated, and mown every year; also branches cut off every other year, when it has attained the height of ten feet. This is done at mid-summer, when succulent, and dried for winter's use. The *roots* are very sweet, and afford an extract which might be substituted for liquorice. The flowers have been employed medicinally as antispasmodic, and distilled into an agreeable, refreshing syrup, which is drank with water, to quench thirst. The flowers retain their fragrance when dried, and those of a single tree are sufficient to perfume a whole garden.

Zephrosia[†] Virginiana, *Pers.*, (Goat's Rue.) An infusion of the root is a very popular vermifuge.

Trifolium, *Linn.*, five species. Arvense, (Stone Clover.) Pratense, *Linn.*, (Red Clover.) Reflexum, *Linn.*, (Buffalo Clover.) Repens, *Linn.*, (White Clover.) Agrarium, (Yellow Clover.) The *Pratense* is well known as a most valuable fodder plant, making the best sort of hay, either by itself or mixed with other grasses. Probably a biennial. The *Reflexum* affects the salivary glands, and is common in the Western States. The *Repens* also acts powerfully on the salivary glands, sometimes producing complete salivation. (Elliot.)

Melilotus Officinalis, *Willd.*, (Yellow Melilot.) When dry, this plant has an agreeable odor, much like that of the sweet-scented vernal grass. Said to be the chief ingredient used for flavoring the *Gruyère cheese.* Three species. Formerly included among emollients, but contains very little mucilage.

Genista[‡] Tinctoria, *Linn.*, (Dyer's Green-weed) An exotic. The plant yields a coloring matter that is used for dying wool yellow. It has also been employed in medicine as a diuretic and mild purgative. The seeds are emetic and cathartic, in doses of ʒj. to ʒij.; also diuretic and useful in dropsy.

Baptisia[§] Tinctoria, *R. Brown*, (Wild Indigo.) An indigenous, perennial plant. Medical properties reside chiefly in the cortical portion of the root. In large doses emetic and cathartic, in smaller mildly laxative. Said to be useful in scarlet fever, typhus fever, and that state of the system which attends gangrene; also externally to ulcers. The plant yields a quantity of coarse Indigo, resembling the *fig blue.*

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[*] From *amphi* on both sides, and *carpos*, fruit, producing fruit both above and below ground.

[†] From the Greek, *zephros*, ash-colored.

[‡] From the Celtic, *gen*, a small bush.

[§] From the Latin, *bapto*, to dye, some of the plants yielding a coloring matter, like Indigo.

CASSIA MARILANDICA, *Linn.*, (American Senna.) A well-known cathartic. Taste slightly nauseous, leaves contain resin, extractive, and a volatile oil, equal to foreign, only requiring a larger quantity.

CERCIS CANADENSIS, *Linn.*, (Red-Bud, or American Judas Tree.) Niagara county. The flowers are acid, and used by the French Canadians for salads and pickles.

GYMNOCLADUS* CANADENSIS, *Linn.*, (Coffee Tree.) Trunk thirty to fifty feet high, one foot or more in diameter; branches few and thick; *bark* bitter and acrid; leaves one to three feet long; legume six–ten inches long, two inches broad; seeds half an inch in diameter. On Seneca and Cayuga lakes. According to Michaux, the wood of this tree is well suited to cabinet-making, and its strength renders it proper for building. Like the locust, it has the power of rapidly converting its sap into perfect wood. Much esteemed as an ornamental tree.

ROSACEÆ, *Juss.*—(THE ROSE TRIBE).

PRUNUS† AMERICANA, *Marshall*, (Red Plum. Yellow Plum.) A tree eight to ten feet high, fruit half an inch in diameter, oval or nearly globose, mostly reddish-orange when ripe, with a juicy yellow pulp, and a thick tough skin. Palatable when cultivated, but rather acerb in a wild state.

PRUNUS MARATIMA, *Wang.*, (Beach Plum. Sand Plum.) Two to five feet high; fruit usually purple, and sometimes crimson; two varieties; one has fruit often an inch in diameter, and somewhat oval; the fruit of the other is the size of a small cherry. When fully ripe agreeably flavored, but mostly acerb and astringent. Sold in N. York market under the name of *Beach Plum.* Both species laxative and nutritious. The pulp might make a useful addition to cathartic decoctions, or be used in preparing laxative confections. (*Off. Prep. Pruni Pulpa, U. S. P.*)

CERASUS‡ PUMILA, *Michx.*, (Sand Cherry.) Stem, trailing; two to three feet long; fruit small, dark-red, eatable. Rare.

C. PENNSYLVANICA, *Loisel*, (Bird Cherry.) Tree twenty to twenty-five feet high; fruit, size of a large pea, red, austere, scarcely eatable.

C. VIRGINIANA, *De Cand.*, (Choke Cherry.) A shrub or small tree. Fruit, size of a pea, bitter, astringent, scarcely eatable. Pulp forms a good astringent jelly in dysentery and diarrhœa.

CERASUS VULGARIS, *Mill.*, (Red, or Sour Cherry. Morello Cherry.) Extensively employed for pies and pastries. One of the most valuable varieties. Refrigerant, laxative, antiseptic. The juice forms a cooling drink in fevers; is also nutritious. Cullen considers cherries as decidedly *sedative*, owing to the malic acid present.

C. SEROTINA, *De Cand.*, (Wild Cherry. Black Cherry.) A well known tree, erroneously called *C. Virginiana* by some writers. Bark only officinal. Taste agreeably bitter and aromatic. *Chem. Comp.*

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* From *gymnos*, naked, and *klados*, branch—its branches are few and large.

† The Latin name for Plum.

‡ The name of a town in Asia, whence the Cherry originally came.

Starch, tannin, resin, gallic acid and fatty matter, lignin, red coloring matter, salts of lime, potash and iron. Volatile oil and hydrocyanic acid are obtained from it by distillation, but they do not exist ready-formed in the bark, but result from the reaction of water upon *emulsin* and *amygdalin*, two of its constituents. These two peculiar principles are contained in distinct cells, in the seeds of the *Amygdalea*, and when the kernels are bruised, and especially when heat is applied, they immediately react on each other, and give rise to the formation of *prussic acid* and some other products. The wild cherry bark is one of our best tonics, as it combines sedative properties—the power of calming irritation and diminishing nervous excitaility; hence it is well adapted to, cases of gastric debility, attended with general or local irritation; lowers the action of the heart; useful in latter stages of phthisis, hectic fever, atonic dyspepsia, nervous irritability; intermittents, and convalescence from inflammatory and other diseases. Cold infusion is the best form of administration—syrup and powder also used. (See *Wood & Bache*, p. 578, *Off. Prep. Inf. Prun. Virg.*)

SPIRÆA[*] TOMENTOSA, *Linn.*, (Hard Hack. Steeple Bush.) A well known plant; all parts medicinal; contains tannin, gallic acid, and bitter extractive. Medical properties, tonic and astringent; hence used in diarrhœa, cholera infantum, and general debility; more agreeable to the stomach than most other astringents. Given in decoction or extract—dose of former ℥ i– ℥ ij., of latter 5 to 15 grains. The *S. Salicifolia*, (Queen of the Meadows,) has probably similar properties.

GILLENIA TRIFOLIATA, *Maench.*, (Indian Physic.) G. STIPULACEA, *Nutt.*, (American Ipecacuanha.) These two valuable plants grow in the western and southwestern counties of this State. Stem, herbaceous; root, perennial, and officinal. A very mild and efficient emetic and cathartic. In small doses, tonic and deobstruent—resembles ipecac. in its mode of operation, more than any other indigenous article. Dose of powdered root, 20 to 30 grains.

GEUM[†] RIVALE, *Linn.*, (Water Avens. Purple Avens.) The *root*, a good tonic and powerful astringent; decoction, powder or extract; in passive hemorrhages, leucorrhœa, diarrhœa, dyspepsia, and the debility of phthisis pulmonalis. The root is a popular medicine made into a syrup, for "cleansing the blood." Also said to be used as a substitute for *chocolate*.

SANGUISORBA[‡] CANADENSIS, (American Great Burnet.) Tonic and astringent.

AGRIMONIA[§] EUPATORIA, *Linn.*, (Common Agrimony.) The herb and root. The former has a weak, but agreeable aromatic odor, and a rough, bitterish, aromatic taste; root more bitter and astringent; contains a volatile oil. A mild tonic and astringent, also deobstruent. Has been recommended in jaundice, uterine hemorrhage, visceral obstructions, and diseases of the skin; also as a gargle in affections of the throat. The Indians use it in fevers. Given in substance, infusion or decoction.

POTENTILLA[‖] NORVEGICA, *Linn.* TRIDENTATA, *Ait.* CANADENsis, *Linn.* Argentea, *Linn.* Arguta, *Pursh.* Fruticosa, *Linn.* Anserina, *Linn.* All these species of *Cinquefoil* are good mild astringents, and may be used with advantage where such remedies are indicated.

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[*] The *speireia* of Theophrastus.

[†] From the Greek, *genæ*, an agreeable flavor, the root being aromatic.

[‡] From *sanguis*, blood, and *sorbes*, to absorb, because used to stop bleeding.

[§] From the Greek, *argeme*, cataract, which this plant was supposed to cure.

[‖] From the Latin, *potens*, in allusion to its supposed medicinal properties.

Fragaria Vipginiana, *Ehrh.*, (Wild Strawberry.) The Strawberry deserves a place among medicinal, as well as dietetical plants. The fruit is laxative, refrigerant, diuretic and sedative, and constitutes an excellent article of diet for invalids, and convalescents from other diseases. The root and leaves are mildly astringent.

Rubus[*] Odoratus, *Linn.*, (Flowering Raspberry.) R. Triflorus, *Rich.*, (Dwarf Raspberry.) Strigosus, *Michx.*, (Red Wild Raspberry.) Occidentalis, *Linn.*, (Black Raspberry.) Villosus, *Ait.*, (Common Blackberry.) Canadensis, *Linn.*, (Dewberry. Low Blackberry.) Hispidus, *Linn.*, (Running Swamp Blackberry.) Cuneifolius, *Pursh*, (Sand Blackberry.) The roots of all these species contain tannin, and are tonic and astringent. That of the *Villosus* is a favorite domestic remedy in bowel affections. The watery decoction sets well on the stomach, or it may be given boiled with milk or rennet whey, ℥ i. of smaller roots boiled in a pint to half a pint, of which ℥ i.–℥ ij. are to be given three times a-day, in diarrhœa, chronic dysentery, etc. The *berries*, made into a jelly, form a good remedy in dysentery, and fresh are a healthy article of diet to invalids.

Rosa Carolina, *Linn.*, (Swamp Rose.) R. Lucida, *Ehrh.*, (Dwarf Wild Rose.) R. Blanda, *Ait.*, (Early Wild Rose.) R. Rubiginosa, *Linn.*, (Sweet Briar.) The petals might be used to form a mild, laxative syrup, while the roots are moderately astringent. They should be further investigated.

Cratægus,[†] *Linn.*, (Thorn Tree.) Five species. Oxyacantha, *Linn.*, (Hawthorn.) Crus-galli, *Linn.*, (Cockspur Thorn.) Coccinea, (White Thorn.) Tomentosa, *Linn.*, (Black Thorn.) Punctata, *Jacq.*, (Common Thorn.) The fruit of some of these are edible. The bark is sometimes substituted for that of the *Rhamnus Cath.*, in making *Syrup of Buckthorn.* A useful shrub for making hedges.

Pyrus, *Linn.*, (Apple. Pear.) P. Coronaria, (Crab Apple.) Fruit yellowish-green, hard, very acid and fragrant. Juice forms a good gargle in sore throat.

Pyrus Arbutifolia, *Linn*, (Chokeberry.) A shrub-fruit, size of a large whortleberry. Sweetish, but very astringent. Two varieties, one *white*, the other *black*.

Lythraceæ, *Juss.*—(The Loose Strife Tribe.)

Lythrum Hyssopifolia and Salicaria, *Linn.*, (Purple Loose Strife.) Contains tannin and much mucilage, hence astringent and demulcent; popular in dysentery and diarrhœa.

Onoraceæ, *Juss.*—(The Evening Primrose Tribe.)

Oenothera Biennis, *Linn.* Fruticosa, *Linn.* Linearis, *Michx.* Chrysantha, *Michx.*, and Pumila, *Linn.*, (Evening Primrose,

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[*] From the Celtic, *rub*, red, the color of the fruit in many of the species.

[†] From the Greek, *kratos*, strength, in allusion to the wood.

Cure-all, etc.) The *Biennis* is chiefly used in medicine. Bark and leaves mucilaginous, slightly acrid. Dr. Griffith states that he has cured infantile eruptions, as tetter, with a decoction of this plant, when all other means had failed. (*Med. Bot.* p. 304.) He directs a strong decoction, with which the parts affected are to be bathed several times a day. Forms a good emollient in ulcers.

Lythrum Hyssopifolia, *Linn.*, (Common Purple Loose Strife.) The whole plant demulcent and astringent; useful in diarrhœa and chronic dysentery. Decoction of the root (℥ i. to oj.) the best form of exhibition, in doses of ℥ ij., three times a day. A useful remedy.

Cactaceæ, *Juss.*—(The Cactus Tribe.)

Opuntia Vulgaris, *Mill.*, (Prickly Pear.) Common around New-York and on Long Island. Fruit two inches long. A rubefacient and vesicant.

Grossulaceæ, *De Can.*—(The Currant Tribe.)

Ribes, (Currant and Gooseberry.) Five species. Cynosbati, (Prickly Gooseberry.) Rotundifolium, (Round-leaved Gooseberry.) Lacustre, (Swamp Gooseberry.) Floridum, (Wild Black Currant.) Prostratum, (Fetid Currant.) Currant juice is laxative, refrigerant and antiseptic. Its wine contains 20 per cent. of alcohol. The black currant is astringent.

Saxifragaceæ, (The Saxifrage Tribe.)

Heuchera Americana, (Common Alum Root.) A powerful astringent. An extract from the roots of this plant, would probably be equal to that of the Rhatany or Catechu. The basis of some of the *cancer* powders of empirics. Employed by the Indians as an application to wounds and ulcers.

Hamamelaceæ, *R. Brown.*—(Witch Hazel Tribe.)

Hamamelis Virginica, *Linn.*, (Witch Hazel.) The bark of this plant has a bitter, astringent, somewhat sweetish and pungent taste. Is employed by the Indians as a sedative and discutient to painful tumors, and external inflammations. It is a popular remedy in the shape of a poultice or decoction, in hemorrhoidal and ophthalmic affections; also infusion of leaves in bowel complaints and hemorrhages. Seeds are edible, like the hazelnut. Deserves further trials. Erroneously supposed to have the power of indicating water and ores.

Crassulaceæ, *Juss.*—(The House Leek Tribe.)

Sedum, *Linn.*, (Stone Crop.) P. Telephium, *Linn.*, (Orpine, or Live Forever.) An astringent demulcent. A popular remedy in dysentery and hemoptisis; also as a vulnerary. Formerly employed externally to cicatrize wounds.

Umbelliferæ, *Juss.*—(The Umbelliferous Tribe.)

This well known order furnishes many medicinal plants, differing, however, in their properties. They are all furnished with a volatile oil or balsam; which, in the fruit, is lodged in longitudinal canals (*vittæ*) in the carpels; some furnish gum-resins, and a few are pervaded in every part with an alkaloid, acro-narcotic principle. Many species are used as articles of food, and still more are medicinal.

SANICULA MARILANDICA, *Linn.*, (Long-styled Sanicle.) S. CANADENSIS, *Linn.*, (Canadian Sanicle. Black-snake Root.) Under which latter name they are employed as domestic medicines, as diaphoretic, stimulant and stomachic. They deserve further examination.

CICUTA MACULATA, *Linn.*, (Water Hemlock. Spotted Cowbane.) Common in swamps. The most dangerous vegetable poison indigenous to the U. States, often mistaken by children for the root of *Sweet Sicily*, (*Osmorhiza longistylis*,) called *Beaver Poison* and *Musquash* in the western part of the State. Causes the usual symptoms of the *acro-narcotics*. The whole plant poisonous, but the root most active. Has a strong aromatic taste and odor, and the bark contains a yellowish, viscid juice. Seldom employed in practice, but is occasionally given as a sedative, and to relieve pain in scirrus and cancer.

HERACLEUM LANATUM, *Michx.*, (Masterwort. Cow Parsnip.) Root has a strong, disagreeable odor and acrid taste. The leaves and root stimulate the skin, when applied to it. Poisonous when growing in damp places. In medicine, it is stimulant and carminative. Has been used with success in epilepsy, attended with flatulence and gastric disorder. (*Thatcher's Dispensatory.*)

ARCHANGELICA ATROPURPUREA, (Common Angelica.) The root contains bitter extractive, gum, an acrid soft resin, volatile oil, etc. An aromatic stimulant and tonic. *Vittæ* filled with a pungent and rather disagreeable aromatic oil. A popular aromatic tonic and carminative, used in flatulent colic and cardialgia. The stems are sometimes candied as sweetmeats. In a recent state, the root is acrid, and said to be poisonous.

DAUCUS CAROTA, *Linn.*, (Wild Carrot.) An indigenous plant. A very powerful diuretic. A strong decoction, drunk freely, very useful in nephritic complaints, and in the passage of urinary calculi. For gravel, the patient should drink copiously of a strong infusion, warm. A useful remedy.

CONIUM MACULATUM,* *Linn.*, (Poison Hemlock.) The leaves and seed contain resin, extractive, gum, albumen, a green fecula, saline matters, and two volatile substances; one an *oil*, on which the odor of the plant depends; the other an alkaline principle, *conia*, *conine*, *conicene*, etc. This is the active principle of the plant, and is a colorless oily liquid, lighter than water, and causing death almost as soon as hydrocyanic acid. (See *Wood & Bache.*) Narcotic, without being decidedly stimulant or sedative to the circulation. Generally believed to possess anodyne, antispasmodic, antiphrodisiac, deobstruent and diuretic properties. Has no curative virtues in scirrhus or cancer, though decidedly palliative.

PANAX QUINQUEFOLIUM, *Linn.*, (Common Ginseng.) A favorite article among the Chinese, forming an ingredient in nearly all their prescriptions; formerly exported in large quantities to Canton, from this country. The root, which is fleshy, and spindle-shaped, has a feeble odor, and a sweet, slightly aromatic taste, like liquorice. Has no other medicinal properties than those of a mild and pleasant demulcent.

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* The *koneion* of Theophrastus, from *konos*, a cone or top, whose whirling motion resembles the giddiness produced by this plant.—*Hooker.*

Cornus Florida,[*] *Linn.*, (Common Dog Wood.) A valuable tonic and astringent; its properties closely resemble those of the Peruvian bark. Has been used with success in intermittent and typhoid fevers. May be given in powder, decoction, or extract. *Decoct.*, officinal.

C. Alternifolia, *Linn.*, (Alternate-leaved Dog Wood.) The bark of this species forms one of the *Shaker medicines;* is diaphoretic, tonic and astringent.

C. Circinata, *Linn.*, (Round-leaved Dogwood). Possesses similar virtues to the *Florida*, used in same way; taste bitter, astringent and aromatic. The late Dr. Ives used an infusion made by pouring O j. boiling water on to ℥ j. of the coarsely powdered bark. Dose ℥ i. to ℥ ij.

C. Sericea, *Linn.*, (Swamp Dogwood). Possesses similar virtues to the above species. The same remark will apply to the *C. paniculata.*

Pastinaca Sativa, *Linn.*, (Common, or Wild Parsnip.) Esculent.

Osmorhiza Longistylis, *De Can.*, (Sweet Sicily.) A very pleasant carminative. Children often mistake the *Cicuta* for it.

To these indigenous plants may be added various cultivated exotics, as Carum, (Caraway.) Foeniculum, (Fennel.) Anethum, (Dill.) Cuminum, (Cumin.) Coriandrum, (Coriander,) etc., all useful carminatives, and some of them employed in domestic economy.

Araliaceæ, *Juss.*

Aralia Racemosa, *Linn.*, (Spikenard.) The root and leaves are in great repute as aromatic tonics. Usually taken in form of tincture.

A. Nudicaulis, *Linn.*, (Wild Sarsaparilla.) A well known medicinal plant, possessing gently stimulating and diaphoretic properties. A decided alterative, and useful in rheumatic, syphilitic, and cutaneous diseases. Prepared and given in the same manner as the genuine sarsaparilla.

A. Spinosa, (Angelica Tree. Tooth-ache Tree.) Cultivated in gardens as an ornamental shrub. A stimulant diaphoretic. An infusion of recent root, emetic and cathartic; used with advantage in chronic rheumatism and cutaneous affections.

Arabia Hispida, *Michx.*, (Wild Elder.) A valuable diuretic in dropsies, in decoction. (*Peck,* in *Am. Jour. Med. Sci.*, xix., 117.)

SUB-CLASS II.—MONOPETALOUS EXOGENOUS PLANTS.

Caprifoliaceae, (*The Honey-suckle Tribe.*)

Triosteum Perfoliatum, *Linn.*, (Feverwort, Horse Gentian).—Cathartic, emetic, and diuretic. Powdered bark of root most active; in doses of xx grs. acts as cathartic, 30 to 40 emetic. Its active properties are taken up by water and alcohol. Extract purges in doses of x grs.; 5 lbs. of the root produces 2 lbs. of extract. Leaves are diaphoretic. The hard seeds have been used as a substitute for coffee. This plant deserves further trials. (See *Wood* and *Bache*, p. 721).

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[*] From the Latin, *cornus,* horn, from the hardness of the wood.

SAMBUCUS NIGRA, *Linn.*, (Common Elder). Inner bark aperient and deobstruent, also emetic in large doses. Infusion of flowers diaphoretic. Elder ointment is a soothing application to ulcers, burns, etc. The berries furnish a juice, which diluted with water, forms a cooling and laxative drink in fevers. Wine of the berries is an excellent cordial, much used in domestic practice.

VIBURNUM PRUNIFOLIUM, *Linn.*, (Black Haw-Sloe). Fruit one-third of an inch long, bluish black, and slightly glaucous when mature. The *fruit*, when mature, is sweetish and esculent.

VIB., LENTAGO, *Linn.*, (Sweet Viburnum). A tree 15–20 feet high. Fruit rather larger than the preceding species, bluish black, with a glaucous bloom; the pulp thin and sweetish. The fruit is sweet and esculent after the action of frost.

VIB., DENTATUM, *Linn.*, (Arrow Wood), 10 to 12 feet high, used by the aborigines for making arrows—also for *fuse-sticks* in blasting, the pith having been removed.

VIB., PAUCIFLORUM, *Syl.*, (Mountain Bark Cranberry), from two to four feet high, fruit roundish oval, compressed, red.—Mountains of Essex county.

VIB., OPULUS, *Linn.*, (Bush Cranberry, High Cranberry), from 3 to 10 feet high. The fruit is acid, half an inch long, juicy, slightly bitter, translucent when dry, used as a substitute for cranberries. Common *snow-ball* is a variety of this species.

RUBIACEÆ, *Juss.*, (THE MADDER TRIBE).

GALIUM* APARINE, *De Can.*, (Common Cleavers or Goose Grass). An annual succulent plant, inodorous, has a bitterish and somewhat acrid taste. Expressed juice aperient, diuretic, antiscorbutic; has been used in dropsy, congestion of spleen, scrofula, and scorbutic eruptions; ℥ iij. of the juice twice a day; also used as an ointment to scrofulous swellings. We have several other species of galium possessing the same medicinal properties. Probably one of our most valuable diuretics, highly useful in suppression of urine and nephritic complaints; has considerable popular reputation in scorbutus and hemoptysis; also in gonorrhea and inflammatory affections of the kidneys; cold infusion should always be employed, drank freely.

CEPHALANTHUS OCCIDENTALIS, *Linn.*, (Button-bush, Pond Dogwood). Tonic and deobstruent. Deserves further trial.

MITCHELLA REPENS, *Linn.*, (Partridge Berry). Berries one-third of an inch in diameter; edible, but insipid. Slightly diuretic and alterative.

VALERIANACEÆ, (THE VALERIAN TRIBE).

VALERIANA† SYLVATICA, (Tall Swamp Valerian.) This plant is closely allied to the *dioica*, and possesses similar medicinal properties, acting as a stimulant and antispasmodic; useful in hysteria, in form of infusion or powder of root—contains considerable volatile oil, to which it owes its effects.

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* From the Greek, *gala*, milk, one of the species having been used to curdle milk.

† From the Latin *valeo*, to be strong, from its supposed virtues.

Compositæ, *Linn.*, (The Composite Tribe).

Liatris Spicata, *Willd.*, (Tall Button Snakeroot) An indigenous perennial plant, has a tuberous root, possessing a terebinthinate odor, and a warm, bitter taste. Is tonic, diaphoretic, alterative and diuretic; decoction has cured gonorrhea; forms useful gargle in sore throat; useful in gravel, scrofula, and dropsy; one of the *Shaker medicines.* We have several species of this plant. All that have tuberous roots appear to be diuretic.

Eupatorium* Purpureum, *Linn.*, (Joe Pye Weed). This well-known plant, sometimes called *gravel-weed*, has a bitter, aromatic, and astringent taste, and is diuretic and diaphoretic; is a popular remedy for the cure of *gravel.*

E. Perfoliatum, *Linn.*, (Boneset, Thoroughwort). Tonic, diaphoretic; in large doses, emetic and aperient; useful in colds and the commencement of fevers, to induce sweating; also in hot decoction in the cold stage of intermittents. The cold decoction to be given during the intervals. Its diaphoretic properties are most important, though it is given with benefit in general debility, dyspepsia, and where simple, bitter tonics are indicated.

E. Teucrifolium, (Wild Horehound). Less bitter and disagreeable than the last, though nearly equally medicinal. Tonic, diaphoretic, diuretic, and aperient; used successfully in intermittents. We have *eight* species of *eupatorium* growing in the State of New-York, all of which possess similar properties.

The *E. Aromaticum* (*sweet-scented Hemp weed,*) the *E. Ageritoides,* (*White Snake-root,*) and several other species of this plant, possess similar properties.

Tussilago,† Farfara, *Linn.*, (Common Coltsfoot). A well-known and popular emollient, demulcent and tonic—and in pulmonary affections, acute and chronic. Its expectorant properties are slight. Cullen recommends the expressed juice in scrofula. Usual form of administration is decoction; ʒ ij. of the plant boiled in O ij. to one. The leaves, flowers and root are all used. The latter is bitter, as well as mucilaginous. The "*Essence of Coltsfoot,*" is a balsam dissolved in alcohol, and often injurious. The dried leaves are sometimes smoked for the relief of asthma.

Aster,‡ *Tourn.* We have twenty-six known species of Aster growing in this State, some of which have valuable medicinal properties. Those which have aromatic roots are stimulant, diaphoretic, diuretic, and antispasmodic; the *Novae-Angliae* is employed, in decoction, as an external application in cutaneous eruptions.

Erigeron, *Linn.*, (Fleabane). E. Canadense, *Linn.*, (Horse Weed). E. Bellidifolium, *Muhl.*, (Poor Robert's Plantain). E. Philadelphicum, *Linn.*, (Philadelphia Fleabane). E. Annuum, *Pers.*,

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* From *Eupator*, king of Pontus, who used this plant as a medicine.

† From the Latin, *tassis*, cough, for which the plant is used.

‡ From the Greek, *aster*, a *star*, the shape of the flower.

(Sweet Scabious Daisy). E. Strigosum, *Muhl.*, (Fleabane Daisy.) All the above species are diuretic, tonic, astringent, and antilithic. They have been employed successfully in nephritic and dropsical complaints, as hydrothorax. The *Canadense* is astringent in perhaps a greater degree than the others, and was employed by the late Dr. Dupuy, of this city, in diarrhœa, dysentery, and other profluviæ, in form of infusion and decoction, extract and tincture. We prefer the *Canadense*, although the other species are highly medicinal. Dr. Williams speaks highly of this plant, in the *New-York Journal of Medicine*, vol. 7, p. 36–7. It deserves more frequent use. *The Annuum*, (*Sweet Scabious Daisy, etc.*,) is one of the Shaker remedies, and is a very valuable diuretic and astringent. It has a considerable reputation as an alterative ; a syrup of it promotes expectoration in dry coughs, and it is a decided emmenagogue.

Solidago,* *Linn.*, (Golden Rod). Out of sixty species of this plant, growing in the United States, New-York furnishes at least twenty-five, some of which are valuable medicines.

S. Odora, *Ait.*, (The Sweet-scented Golden Rod), which has flowers of a deep, golden yellow color, is aromatic, carminative, and stimulant ; diaphoretic when given in warm infusion, and successfully to allay pain from flatulence ; to allay nausea, and cover the taste of unpleasant medicines usually given for these purposes in infusion. The *vol., oil* is also used. The dried flowers form a good substitute for *tea.* It is also astringent, and has lithonthriptic properties. The bruised leaves exhale the odor of anise-seed, and yield by distillation a fragrant volatile oil, which is used as a remedy for flatulence and to allay nausea.

Solidago Virga-Aurea, *Linn.*, (Common Golden Rod). The flowers are aperient, diuretic and tonic ; the leaves gently astringent ; a useful remedy in nephirtic complaints and suppression of urine, in form of infusion made of the flowers. An infusion of the leaves is useful in general debility and chronic fluxes, as diarrhœa and dysentery, leucorrhea, etc.

Inula Helenium, *Linn.*, (Common Elecampane). A naturalized plant, contains a peculiar principle, analogous to starch, called *inulin ;* a white concrete substance called *heleine*, intermediate in its properties between the essential oils and camphor, also bitter extractive, a bitter resin, gum, albumen, lignin, wax, vol. oil, saline matters, etc. Elecampane is tonic and gently stimulant ; has diaphoretic, diuretic, emmenagogue, and expectorant properties ; chiefly employed in chronic pulmonary disorders ; also a popular remedy in cutaneous disorders. Given in powder and decoction.

Pluchea Camphorata, *De-Can.*, (Sea-side Marsh Fleabane). A strong-scented plant, growing near the sea-side, exhaling an odor of camphor, a useful stimulant, and powerful antispasmodic, diaphoretic and diuretic.

Rudbeckia Laciniata, *Linn.*, (Thimble Weed). Diuretic, balsamic, useful in nephitic diseases, especially albuminaria. Given freely in decoction.

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* From the Latin, *solido*, to make firm, in allusion to its supposed vulnerary qualities.

Helenium[*] Autumnale, *Linn.*, (Sneeze Weed). All parts of this plant are bitter, and somewhat acrid; has been used as a sternutatory or errhine, in form of powdered leaves and flowers. It is also tonic and diaphoretic, and is recommended in intermittents. As an errhine, Griffith says, it is not equal in power to the *Asarum*, or the brown powder of the kalmia, but is useful where these cannot be procured.

Maruta Cotula, *De Cand.*, [May Weed]. A troublesome weed, introduced from Europe; has a strong, unpleasant smell, and an acrid, bitter, and nauseous taste. The whole plant is officinal. It is tonic, diaphoretic, emetic, and very similar to chamomile in its medicinal properties. It might be employed in some cases with equal benefit, if its taste was not so unpleasant. The fresh plant bruised and applied to the skin, vesicates; but the blisters readily heal.

Anthemis[†] Arvensis, *Linn.*, (Wild Chamomile). This plant resembles the common chamomile in its medicinal effects, and is used in place of it in Germany. The flowers have an acrid taste, but no smell. Tonic and anthelmintic.

Achillea[‡] Millefolium, *Linn.*, (Common Yarrow). The whole herb medicinal. The flowers and leaves have a pleasant, aromatic odor, and a bitter, astringent, pungent taste; contains vol., oil, bitter extractive and tannin, to which its virtues are owing; active principles extracted by water and alcohol. A mild aromatic and astringent, used in Sweden in place of hops in brewing beer; useful in intermittents, diarrhœa, general debility, and nervous affections. Infusion the best form of administration. The *vol. oil* is also given in a dose of 20 to 30 drops.

Helianthus Tuberosus, *Linn.*, (Jerusalem Artichoke). Cultivated in gardens for the firm fleshy tubers at the root, which are pickled and used as a condiment.

H. Annuus, *Linn.*, (Common Sun Flower). Seed yield a valuable oil, useful for lamps; also has medicinal properties.

Tanacetum[§] Vulgare, *Linn.*, (Common Tansey). A well-known domestic tonic, stomachic, and anthelmintic, useful in atonic dyspepsia, hysteria, and intermittents; also in amenorrhea; and the oil is often taken to produce abortion. The *seeds* are most effectual as a vermifuge. Dose of the powder from ʒ ss. to ʒ i., two or three times a day; infusion is the best form. For a fatal case of poisoning by the oil, see *Am. Jour. Med. Sci.* (16, 256).

Artemisia,[‖] *Linn.*, (Worm Wood). We have three species of this plant, viz. the *Canadensis*, the *Caudata*, and the *Vulgaris*; all of which are bitter tonics, and might be employed where such medicines are indicated. They are anthelmintic, stomachic, and antispasmodic, and owe their virtues to an essential oil.

Gnaphalium[¶] Polycephalum, *Michx.*, (Life Everlasting Balsam). A sweet-scented plant, employed as a popular remedy in dysentery and other bowel affections; an infusion of it is also used in pulmonary and hemorrhagic affections; and externally, as a fomentation, in bruises, local swellings, and tumors.

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[*] Named after *Helen*, wife of Menelaus, who used this, or a similar plant, as a *cosmetic*.

[†] From the Greek, *anthemis*, flower.

[‡] Named after *Achilles*, a disciple of Chiron.

[§] Name altered from the Greek *athanasia*, *a*, not, and *thanatos*, death, because its flowers are lasting.

[‖] From *Artemis*, the *Diana* of the Greeks.

[¶] From the Greek, *gnaphalon*, soft down, or wool.

Erechtites Hieracifolius, *Raf.*, (Fire-weed). The whole plant has a rank, nauseous odor, and a disagreeable, bitterish taste. In large doses, emetic—employed in diarrhœa; the essential oil is recommended for piles; and externally, fomentations with the bruised plant, in cases of contusions, wounds, ulcers, etc.

Cacalia Atriplicifolia, *Linn.*, (Indian Plantain). The leaves are sometimes used as an application to wounds.

Senecio* Aureus, *Linn.*, (Life Root, Squaw Weed). This plant is sometimes called *Gravel Root*, and by the Indians *Nun-qua.* It is a certain diuretic and diaphoretic; it increases the force of the circulation, without producing any febrile symptoms; is particularly useful in cases of anemia, attended with cold extremities, and feeble circulation; a powerful emmenagogue, when given in form of the warm infusion; also antispasmodic, particularly recommended where the capillary circulation is feeble. (*Graham*, in *N. York Jour. of Med.*, vol. 3, p. 366).

Arnica Mollis, *Hooker*, (Soft Arnica). According to Dr. Thomson, (*Lond. Disp.*), the European species, (*Montana*), contains an *igasaurate of strychnia or brucia*, to which it owes its medicinal power. It has proved successful in intermittents, and is used with benefit in palsy, tumors and amaurosis. Some of the American species, according to Hooker, (*Am. Bor.*, p. 330), approach so very closely to the *Montana* in their characters, as to be varieties of it. It is worth investigating whether the *A. Mollis*, which is found in Essex county and some other parts of the State, does not possess the same virtues, and may be substituted for the European plant.

Centaurea† Cyanus, *Linn.*, (French Pink). Cnicus,‡ *Vaill.*, (Blessed Thistle). Carduus Benedictus, (Common Blessed Thistle). An annual herbaceous plant, with yellow flowers, naturalized. The leaves, gathered when in flower, contains a *vol. oil*, and a peculiar principle, *onicin*, crystallizable and very bitter, analogous to *salicin* in composition and effects. The plant tonic, diaphoretic, emetic—cold infusion as a mild and certain tonic; the hot decoction, a good diaphoretic; and in large doses, emetic. The medicinal properties closely resemble those of the chamomile.

Lappa§ Major, *Goert.*, (Burdock). A well-known naturalized plant. The *root* has a mucilaginous and sweetish taste, with slight degree of bitterness and astringency; contains *inulin* and *sugar; seeds* aromatic, bitterish, and acrid; aperient, alterative and sudoriic—one of our very best deobstruents. The infusion of root is a domestic remedy for colic and nephritic complaints, and the leaves applied externally for cutaneous eruptions. The ashes afford much potash. This article may be used with perhaps as much advantage as sarsaparilla, in syphilitic, rheumatic, nephritic, scrofulous, and cutaneous diseases, in form of decoction, made of ℥ ij. recently bruised root in O iij. water, boiled to two, a pint to be taken in 24 hours. Seeds are a useful diuretic, in doses of ʒj. in emulsion, or powder.

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* So named from *Senex*, an old man.

† The *Centaur, Chion,* is said to have cured himself of a wound received from Hercules, with this plant.

‡ From the Greek, *knizo,* to prick or wound.

§ From the Celtic word *llap,* because it lays hold of every thing near it.

Cichorium Intybus, *Linn.*, (Wild Succory, or Chicory). A plant mentioned by Dioscorides, used very anciently in hepatic obstructions. The whole plant bitter without acrimony; taste astringent in root; young leaves sometimes eaten as salad; gently tonic, aperient, and deobstruent; useful, freely taken in hepatic congestion, jaundice, and other visceral obstructions; also in pulmonary affections—strong decoction preferable, used freely; the root, dried and roasted, is sometimes used as a substitute for coffee, also to flavor or adulterate it. The *garden endive* is a species of this plant.

Hieracium* Venosum, *Linn.*, (Rattlesnake Weed). One of the numerous plants said to be an antidote to the bite of the rattlesnake. The *scabrum* exudes a milky juice, and probably would be found a useful medicine.

Nabalus Albus, *Tor. & Gr.* (The Prenanthes of Linneus, Rattlesnake's Root, White Lettuce, etc.) Another supposed specific for the bite of venomous serpents.

N. Fraseri, *De. Can.*, (Gall of the Earth). Root intensely bitter; tonic and deobstruent; diuretic? also recommended for the bite of the rattlesnake.

Taraxacum† Dens-Leonis, (Common Dandelion). Diuretic, tonic, aperient, and alterative; useful in hepatic and other visceral engorgements, and derangements of digestive organs; it increases the secretion of bile, in torpid conditions of the organ, but is contraindicated in cases of irritation or inflammation of stomach and bowels. Given in form of extract, or decoction. Soda increases its activity, and aromatics correct its tendency to produce griping or flatulence. *Off. U. S. P.*

Lobeliaceæ, *Juss.*, (The Lobelia Tribe).

Lobelia Inflata, *Linn.*, (Indian Tobacco). An acrid narcotic; diaphoretic, expectorant, emetic, and cathartic; an infusion causes speedy and severe emesis. attended with long continued and distressing nausea, copious sweating, and great, general relaxation. In large and repeated doses it causes inflammation of the mucous membrane of the stomach and bowels, and death, attended with the usual symptoms of the acro-narcotic poisons. Too violent and distressing in its effects for ordinary use. Tincture useful in asthma, and as an expectorant, with laudanum or ipecac. Much abused by Thomsonians and other quacks. Contains a peculiar principle, *Lobelina*. *Off. U. S. P.*

L. Cardinalis. Medicinal properties somewhat similar to those of *inflata*, but less active; supposed to be useful as a remedy for worms.

L. Syphilitica. Emetic, cathartic, and diuretic. Same remarks apply to this species.

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* From the Greek, *hierax*, a hawk; the ancients supposed the hawk, and other birds of prey, used the juice of this plant to sharpen their sight.

† From the Greek, *tarusso*, to disturb.

L. CLAYTONIANA. Said to be a good diuretic. (See Williams, in *New-York Jour. of Med.*, vol. 7, p. 175). Seven species grow in the State of New-York.

ERICACEÆ, *Endl.*, (THE HEATH TRIBE).

ARCTOSTAPHYLOS* UVA URSI, *Spreng*, (Bear-berry). The *uva ursi* of the shops, a low evergreen shrub, with trailing stems, gathered in autumn; the leaves taste bitterish, strongly astringent, ultimately sweetish; contain tannin, resin, gum, extractive, and gallic acid; tannin abounds to that extent that they are sometimes used in tanning leather; active principles soluble in water and alcohol; astringent, tonic, diuretic, antilithic, and lithontriptic, exerts a direct and specific influence on kidneys and urinary organs; useful in diseases of bladder and kidneys, as nephritis, calculus, catarrh of bladder, or urethra, incontinence of urine, gleet, leucorrhea, hemorrhagia, diabetes, etc. Also in all passive hemorrhages, in decoction or powder. (*Offi. U. S. Phar.*) I found this plant in great abundance on the shores of Lake Superior, where it is smoked with tobacco by the Indians, under the name of "*Kinnikinnick.*"

EPIGAEA† REPENS, *Linn.*, (Trailing Arbutus). This plant has the same medicinal virtues as the *uva ursi*, and might be substituted for it. It is a popular domestic remedy for gravel, and is put up and sold by the Shakers under the name of *Gravel Plant.*

CLETHRA ALNIFOLIA, *Linn.*, (Sweet Pepper Bush). A diaphoretic, stimulant, fragrant, the leaves and flowers; a handsome plant growing in swamps and thickets in the south part of the State.

GAUTIERA‡ PROCUMBENS, *Linn.*, (Partridge Berry). A well-known, small, shrubby, indigenous, evergreen plant. The leaves and whole plant possess aromatic properties, similar to *sweet birch*, which reside in a volatile oil; the leaves contain much *tannin*, and are astringent—a cordial stimulant, united with astringency—adapted well to cures of chronic diarrhœa; chiefly used to impart an agreeable flavor to other preparations. The *oil* or infusion may be used—has been employed successfully as an emmenagogue. (*U. S. P.*). The oil is sold under the name of *Oil of Wintergreen.* Berries are edible, and have a very pleasant flavor. The oil is recently ascertained by M. Cahours to be a *salycilite of the oxide of methyl*, and composed of an acid called the *salycilic*, (hitherto found only in the oil of spirea,) united with the ether of wood-spirit, (*Methylic Ether*).

ANDROMEDA§ POLYFOLIA, *Linn.*, (Sorrel Tree, Sour Tree, Andromeda, etc.).

A. ARBOREA. *Schoepf* states that this species is found in this State, though not mentioned by Torrey. The leaves and wood contain malic acid, with tannin, and hence form a useful combination in many cases of disease. Rafinesque says they form a refreshing, cooling, anti-febrile drink, allaying thirst, etc.; useful where a refrigerant astringent is needed; very similar to the fruit of the ***Rhus Glabrum*** or *Sumac.*

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* From the Greek, *arktos*, a bear, and *staphyle*, a grape.

† From the Greek, *epi*, upon, and *ge* the earth—prostrate.

‡ Named after *Dr Gautier*, a French physician of Quebec.

§ No allusion to the fable of Andromeda.

A. MARIANA, *Linn.*, (Kill Lamb, Stagger-bush). A species supposed to be poisonous to lambs and calves, producing a disease called the staggers; a decoction is said to be useful as a wash in ulcers.

RHODODENDRON,* *Linn.*, (Rose Bay). We have seven species indigenous of this beautiful genus growing in the State of New-York, under the names of *Great Laurel, Wild Honeysuckle*, etc. Their medical properties have never been investigated, so far as we know, although they richly deserve it. If we mistake not, like the *Rhododendron Chrysanthemum* of Siberia, some of the species will be found to have valuable stimulant, diaphoretic, and narcotic properties, and prove valuable remedies in the treatment of rheumatism, palsy, gout, etc.

KALMIA† LATIFOLIA, *Linn.*, (Laurel, Calico-bush). Leaves, narcotic, poisonous. Sheep, and some other animals, are occasionally poisoned by eating the leaves of this plant. Barton says that the flesh of partridges and pheasants that have fed on the leaves in winter, has often caused symptoms of poisoning and even death. Not employed in medicine. Dr. Barton says he has seen 20 grains of the recently powdered leaves given at once without perceptible effect.

K. ANGUSTIFOLIA, (Dwarf Laurel, Sheep Laurel). K. GLAUCA, (Swamp Laurel). Both of these species possess the same qualities as the *latifolia.*

LEDUM PALUSTRE, *Linn.*, (Labrador Tea). The *leaves* have an aromatic, balsamic odor, and bitter taste; contain vol. oil and tannin; tonic, astringent, and slightly narcotic; decoction of leaves is used as a wash, and internally in cutaneous affections, attended with irritation and itching; also in diarrhœa and dysentery; used in Germany, in brewing, as a substitute for *hops.* This plant was used as a substitute for tea, during the revolutionary war.

VACCINIUM CORYMBOSUM, *Linn.*, (Tall Swamp Huckleberry). Berry nearly one-third of an inch in diameter, dark blue, coveredwith a bloom, sub-acid and well-flavored.

V. PENNSYLVANICUM. (Dwarf Blue Huckleberry). Berries large, bluish black, covered with a glaucous gloom, sweet and well-flavored.

V. VACCILLANS. (Low Blue Huckleberry). Berries dark blue, glaucous, very sweet and well-tasted.

V. ULIGNIOSUM. (Alpine Bilberry). Berries deep blue; at sources of the Hudson.

V. CANADENSE, *Kalm.* (Black Bilberry). Berries bluish black, sweet and palatable. (Swamps in certain parts of the State).

V. STAMINEUM, *Linn.*, (Deer Berry, Squaw Huckleberry). Berry large, globose, somewhat pyriform, usually greenish, but sometimes purplish, of a bitterish and somewhat astringent taste, but not unpleasant when fully ripe.

All the above species are nutritious and palatable as food, and constitute a very healthy article of diet to invalids, either in their fresh state or made into a jelly.

VACCINIUM OXYCOCCOS, *Linn.*, (Small Cranberry). V. MACROCARPON, *Ait.*, (Common Cranberry). Both of these species are extensively used as sauce, and as a nutritious diet and drink in febrile diseases. A drink made of cranberry jelly is extremely refreshing and antifebrile.

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* From the Greek, *rhodon*, a rose, and *dendron*, a tree.

† In honor of *Peter Kalm*, a Swedish botanist.

GAYLUSSACIA* HIRTELLA, *Torrey & Gray.* (Dwarf Swamp Huckleberry). Fruit black and shining when ripe, glandularly pubescent, watery and rather insipid.

G. FRONDOSA. (Blue Tangle, Dangle Berry). Fruit large, globose, sweet and well-flavored.

G. RESINOSA, *Torrey & Gray.* (Black Huckleberry). Fruit slightly acid, but agreeable.

Same remarks apply to these, as to the former species of this esculent and healthy fruit.

CHIMAPHILLA† UMBELLATA, *Nutt*, (Pipsissewa, Prince's Pine). A well-known evergreen, tonic, diuretic, astringent, antilithic and lithonthriptic; employed by the Indians in scrofula, rheumatism, and nephritic diseases; useful in dropsy; in broken-down habits, its medicinal properties are similar to those of the *uva ursi*, adapted to same cases of disease; an excellent tonic in simple debility of digestive organs; good alterative in cutaneous affections and scrofula.

C. MACULATA, *Pursh*, (Spotted Winter Green). Properties similar to the umbellata; both contain extractive, gum, resin, tannin, saline matters, etc.; bitter, astringent, and sweetish to the taste; but slightly aromatic.

ART. II.—*Abstract of a Letter from* Dr. N. S. JARVIS, Surgeon, U. S. Army, embracing several Surgical Cases which fell under his Treatment and Observation.—(Continued from p. 151, Vol. 8.)

Monterey, Mexico.

DEAR DR.—In continuation of the cases of wounds received in the assault on Monterey, on the 21st of September last, a few of which were briefly described in a letter, and published in your Journal of March, I wish to add another, in some respects interesting from its peculiar character and extent.

Case 1.—Private Rook of "H" Company, 3d Infantry, U. S. Army, was wounded on the morning of that day, and as in the case of Redvill of the same regiment, by what he supposed at the time a fragment of stone, broken from the wall of a house he was passing at the time, by a cannon ball or shell. The wound was directly over the right eye, and immediately above the superciliary ridge into the frontal sinus, fracturing the bone for the distance of an inch, and the whole length of that cavity. Considerable inflammation of the surrounding parts, with intumescence of the upper eyelid ensued, followed by suppuration, and the discharge, at different times, through the opening of the wound and the right nares, of numerous small fragments of bones. Some more of considerable size were removed from the sinus by the aid of a common forceps. Nothing, however, could be discovered by a probe at the time within the cavity. The man's general health was good, and seemed to be little impaired by the wound he had received; and with exception of slight occasional pain in the forehead, complained of nothing, walking about as usual, and eat and drank with his accustomtomed appetite. Both the wound and the discharge from it appeared perfectly healthy, granulating kindly, and presenting every appearance of a speedy and final cure. I should have remarked above, that on probing the cavity of the frontal sinus shortly after he was wounded, and detecting no foreign substance lodged within, the impression of myself and others, as well as the patient himself, was, that the missile, whatever it might be, had glanced off. Neither did I discover at the time any penetration or passage through the posterior wall of the frontal sinus. The wound, however, subsequently proved more tedious and troublesome than was expected: at one time nearly healing up, when it would become suddenly inflamed, break open again, and discharge small fragments of bone. In this manner the complete healing of the wound was protracted up to the time I was temporarily separated from the charge of the general hospital, a period altogether of four months. On my return I learned, much to my surprise, that Rook had died a few days before. During the interval of my absence, I understood he had gone on as usual, his wound presenting no unusual appearance, occasionally, as heretofore, discharging small particles of bone, and then partially closing, but at no time exciting or attracting the particular notice of the surgeon, or care of the attendant in the ward. A few days previous to his death, in consequence of too freely indulging in some intoxicating drink, he fell, and struck the wound with considerable force, on the ground. Something like an epileptic fit followed, which was shortly succeeded by several others, and which occurred, with occasional intervals, nearly up to the time of his death. Considerable inflammation of the wound in like manner ensued as a consequence of the fall. On examination, the point of some hard substance was discovered through the pus at the inner angle of the wound, near the junction of the nasal with the orbital process, and at the point of termination of the superciliary ridge. This, on extraction, proved to be a musket-ball over an ounce in weight, considerably flattened, and roughened on its surface; and imbedded nearly or quite one-eighth of an inch into the substance of the lead, was a portion of what appeared to be the inner table of scull, three-quarters of an inch in length and nearly the same in breadth. This, however, in the extraction, was broken off, leaving a portion of the bone firmly impacted in the ball. The removal of the ball, contrary to expectation, instead of proving a favorable circumstance, was followed shortly by coma, which continued until his death, some four days from the time he fell and received the additional injury, and two days after the extraction. The question naturally arises in this case, where could the ball have been lodged all this time. I have stated that the probe did not detect its presence within the cavity of the frontal sinus, and its size seems to preclude the possibility of its lodging there. It must have therefore passed through the posterior wall of the cavity, and lodged over the roof of the orbit between it and the anterior hemisphere of the brain of that side; and the singularity is, that if in this position, it should have produced so little cerebral disturbance, or in fact any symptoms indicative of the presence of a foreign body in immediate contact with that organ. After his death a probe was passed with ease, and little or no resistance, its whole length through the opening made by the ball directly into the cavity of the scull and along the base of the brain. The absence of all resistance in the passage of the probe would indicate either an abscess extending that distance, or a remollissement or softening of the cerebral structure. Unfortunately, circumstances at the time did not afford leisure to the medical officer attending the case to make a post-mortem examination, and thus ascertain the exact condition of the parts together with the nature and extent of lesion, if any, of the brain. The only manner I can account for a probe not passing through the posterior wall of the frontal sinus during life, and before the extraction of the ball, must be from the fact, that the latter completely filled up or rested against the opening it had made, which subsequently by its removal left a hole equal to its own diameter, directly into the cavity of the brain.

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* From *Guy Lussac*, the French chemist.

† From the Greek, *cheima*, winter, and *phileo*, to love.

While on the subject of wounds, and in connection with them, I will here recall your notice to a circumstance which proved extremely annoying at the time, and in some instances, of fatal consequence to the patient, which I have described in my former communication. I allude to the myriads of maggots that infected every wound dressed on the field, and which in an incredibly short period from the time of deposit of the ova of the fly, were burrowing and nestling in every part of it, requiring the greatest labor and perseverance to effect their complete expulsion, and which in some case was impossible. I little imagined at that time, that these formidable insects would actually invade during sleep the nasal passages and the mouth, and deposit their ova. Such has occurred recently here in two cases which fell under my observation. I shall report them now, more from their singularity than any practical benefit which can possibly be derived from a notice of them.

Case 2*d.*—Carpenter, a private of a company of Texan Rangers, was removed from the field hospital in camp to the general hospital in town, in consequence of repeated epistaxis or hemorrhage from the nose, which had occurred for several successive days, and was arrested with great difficulty at each time. His features were greatly swollen, with inflammation of the nose and adjacent parts. The man complained at the time of irritation, and something, as he described, moving in his nostrils. These, on examination, appeared, to be closed up, and the source of irritation revealed itself by the discovery of a large quantity of maggots, of a large size, filling each cavity and manifesting the greatest activity. On inquiry into the history of the case, I found that this man had, some days previous, after sleeping soundly during the day under the shade of a tree, been seized shortly afterwards by tickling and irritation in the nostrils, followed by inflammation and swelling of the nose internally and externally; and subsequently, when ulceration took place, by hemorrhage. The first object in the treatment of the case was of course the expulsion of the worms, which were evidently the source, as well as the continuance, of the mischief. With this view, calomel was blown through a quill far into each nostril, and afterwards spirits of turpentine freely applied by means of a feather immersed into it, and introduced as far as possible. These applications had the effect of bringing away a great number, which relieved him considerably; but the irritation caused by the ol. terebinth, obliged us to discontinue it. I then substituted a strong decoction of quassia injected frequently into each nostril, which had the effect of bringing away between 2 and 300 of these worms in one day, and, in the course of two or three days more, effected their complete expulsion; and discharged the man entirely cured. The other case was that of a teamster in the employ of the quarter-masters. He, as in the former case, was brought from camp, and received into the hospital appropriated for the sick of that department of the army. His was of a much more grave and serious character than the former. On examination, the velum pend. palat. was discovered, in a high state of inflammation and infiltration, resting on the tongue and completely closing the entrance of the fauces. The inflammation also extended to the parotid and sublingual glands, accompanied by a most fetid and offensive discharge both from the mouth and nostrils. Before his entrance into the hospital, he had discharged many worms. I subsequently ascertained he vomited and discharged by stool, many more; the last, however, were all dead, and were described as of a different color (being red) from those discharged from the nostrils, and which continued until his death, some four or five days afterwards. In this miserable and loathsome condition, he was unable to speak or swallow. The history of his case was very similar to the former. He was represented as frequently sleeping during the day under the shade of some trees, and while in this condition, was extremely difficult to rouse. They, moreover, described him as partially idiotic or foolish; and the supposition was, that while in a state of deep and profound sleep with his mouth wide open, the fly or flies actually entered and deposited their ova. The question may arise as to whether ulceration existed before the appearance of the worms, and which by the fetid character of the discharge would naturally attract the fly, and form a fitting nidus for their eggs. Not having seen the commencement of these cases, I cannot positively assert the existence or non-existence of this state of things; but so far as I can learn from the history of both, would seem to favor the idea or belief, that the fly or its larva was the original source of the mischief and disease. In continuation of this subject of foreign or spurious worms infesting the human body, a case now occurs to my recollection while the army lay encamped in the summer of '46 near Camargo, of a young officer of infantry, in feeble health at the time, applying to me on account of discharging by stool, at different times, quantities, as he stated, of the maggot or larva of the common fly, and which were a source of great annoyance and irritation to him. I first supposed he was mistaken as to the character of the worms, and that they were probably the ascaris lumbricoides, but he assured me they were precisely like the maggot of the common fly, and accounted for their appearance in the following manner. He had suffered, for some time, from a diarrhœa or dysentery, attended, while at stool, with a certain degree of prolapsus of the rectum. On one of these occasions, he expressed no doubt that the fly had lit on the prolapsed intestine and deposited its ova, which were subsequently voided in the state of larva. I prescribed for him at the time, but as he left shortly afterwards on a leave of absence, on account of his health, I had not an opportunity of ascertaining the effect of the remedies, or learning since that period the condition of his general health.

Conner, a clerk in the employment of the quarter-master's department, was wounded on the morning of July 30th by a pistol bullet, which passed through the lower and fleshy part of the forearm, while in an extended position, and lodged directly over the clavicle, near its sternal extremity, and at the point of insertion of the sterno-cleido muscle. It was shortly afterwards extracted, and the wound dressed in the usual manner. Seven days afterwards, some twitchings with slight spasmodic action of the sterno-cleido muscles took place, particularly on touching the wound. This was soon followed by spasms of all the muscles on that side of his neck, gradually extending to the arm and spine, and terminating in a permanent contraction of the sterno-cleido muscle drawing down his head on that side, and rigidity of the muscles of the jaw. I saw him nine days after receiving the wound, and two days after the tetanic symptoms had made their appearance. A thin bloody discharge was issuing from the wound, and at the bottom of it appeared dark-colored or nearly black, which, on examination, I found to be the bone which was denuded of its periosteum for some distance, and apparently in a state of necrosis. At this time he had constant spasms of all the muscles of his right side, and touching his wound in the slightest manner, greatly increased their severity. The rigidity of the muscles of the jaw, and spasmodic action of those of the glottis, rendered it exceedingly difficult for him to swallow anything but fluids, and these last in very small quantities. He complained of no pain whatever, and alluded to the spasmodic action of the muscles as alone annoying to him. I could discover little or no excitement of his pulse or heat of the skin. Having had no passage from his bowels for the last forty-eight hours, I directed 40 grs. of submur. hydrarg. to be rubbed up into a paste with syrup, and applied, by means of a spoon, to the back of the tongue, to be followed in three or four hours by an enema of ol. terebinth and ol. ricini, provided the former did not operate in that time. A blister, two inches in width and twelve in length was applied to the spine, extending from the nape of the neck to the commencement of the lumbar vertebra. The denuded surface of this was directed to be sprinkled with the acet. morphia, gr. ij, at each dressing, and to the wound, lint dipped in a strong watery solution of opium applied, and over that an emollient cataplasm.

Having read the report of seven cases of traumatic tetanus, recorded in the November No. of your Journal, where the use of strychnine was described as successful in every instance, I determined to test its virtue and efficacy in this case. In consequence of the difficulty of swallowing a pill, the form recommended by Dr. Fell, who treated and described the above cases, the solution of strychnine made by the intervention of acetic acid and water, and of similar quantity and strength with the pill, was employed. It was also given in the same manner and at the same intervals as the latter. A few hours following the use of all these means, an evident amelioration was observed, both in the force and frequency of the spasms. These still, at intervals, proved quite annoying to the patient, and, as he observed to me, "were it not for these twitchings he should feel quite well." They, however, continued more or less this and the following day; but so sensibly diminished, as I have before observed, as to awaken the hopes of his friends of their entire cessation and his eventual recovery. So far had they subsided, as to permit him the same night to indulge in a sound sleep of several hours. When he awoke, however, he was attacked by something like a fit, which was shortly succeeded by another, and then sunk into a state of coma or stupor from which he never again rallied, and in that condition expired on the morning of August 12th, thirteen days from the time he received the wound. I have been thus far particular in describing this case, not from anything that might be remarked as novel in its symptoms, or unusual in its character, if we except the freedom from pain experienced in a greater or less degree during the existence of the spasms, and nearly the entire continuance of the illness of the patient. My principal object is to show the decided amelioration and partial suspension of tetanic symptoms after they had existed for two days. Whether this was the effect of the strychnia or the other remedies employed at the same time, or the united effects of both, I cannot confidently say; it may be possible they had no agency whatever in this result, which may have been accidental or arising from some obscure pathological cause. As it is, however, the nature of this disease to go on increasing in severity and force, until its final and fatal termination, we have reason to believe that a favorable action was exerted in some manner over it by the agents employed, and we are disposed to give the credit to the strychnia. I greatly regret I did not see the case at an earlier period, to have enabled me to employ it on the first appearance of the tetanic symptoms, and thus been afforded a chance to test its virtues, and a slight, yet lingering hope, of saving the patient.

Case 5th.—Barton, a private of a company of Texan rangers, was wounded on the 8th of July, by the accidental discharge of a rifle in the hands of another man. The ball entered at the outer and posterior side of the left leg, just above the popliteal space and within the outer tendon of the biceps muscle. It passed directly through, coming out behind the inner hamstring, fortunately avoiding the popliteal artery, and struck the inner edge of the patella of the right knee, and was cut out from beneath the integuments covering its anterior and outer surface. Although small and much flattened, no suspicion existed at the time but that it was the entire ball; and the surgeon who extracted it, never suspected a fracture of the patella, as there was no displacement whatever of that bone. The man was brought to the general hospital, and the wound dressed in the usual manner. Severe inflammation, however, followed the wound of the right knee, notwithstanding its apparently slight character; while that of the left leg, which the ball had completely traversed, was comparatively mild. From the severity of the inflammatory symptoms in the former, I strongly suspected a fracture of the patella, but in consequence of the tumefaction existing at the time, it was impossible to ascertain this fact. The inflammation in a short time extended up the thigh and down the leg, which became enormously swollen; and notwithstanding the most active means employed to subdue this, it was followed by suppuration throughout the whole cellular tissue and under the fascia of both the thigh and leg. The matter formed was discharged by free opening, and continued to run freely for several days. To support his strength under this exhausting drain, brandy, wine and porter, with nutritious diet, was freely given; but a hectic or irritative fever with colliquative diarrhœa coming on, he gradually sunk, and expired on the 13th of Aug. On an exsection after death of the patella, I found it broken into five pieces or portions, each retaining their relative position, with no displacement whatever of the bone. In the cavity of the joint directly under the patella, lay a portion of the ball, apparently the larger half, which had been divided on the edge of that bone, one portion passing externally, and extracted, as we have seen, shortly after the injury, and the other entering or passing under the patella. Marks of intense inflammation, with serous effusion in the joint, existed, and the cartilage covering the condyle of the former was abraded for the distance of an inch, apparently by the force of that portion of the ball found within the cavity.

Had any suspicion existed at the time of the injury, that a portion the ball had entered the cavity of the joint, or that a fraction of the patella existed, there would have been no hesitation in resorting to immediate amputation to save the man's life ; but neither of the two surgeons who first saw him and dressed his wounds, did for a moment imagine either. No crepitus or displacement existed to denote a fracture of the patella ; and the portion of lead extracted, though small, was believed to be the entire ball, and consequently excited no suspicion of a portion of it lying beneath and within the cavity of the joint.

Art. III.—*The Philosophy of Medicine.* A letter to the Editor, By S. L. Metcalfe, M. D.

Dear Sir,—In the September number of your Journal, is an article by Dr. N. S. Davis, called " The Philosophy of Medicine," on the tendency of which, I propose to offer a few observations. The Dr. very justly remarks, that the number, contradictory character, and absurdity of the theories or pretended systems, that have arisen and passed away in rapid succession, " have caused medical science to be regarded by many as so vague and uncertain, as to be little better than a blind system of guessing." This deplorable state of things, which has been admitted by the most distinguished members of the profession, he attributes to a proneness of the human mind to overleap facts, and a fruitless " struggle to grasp the *imponderable, infinite why and wherefore* of things." He observes, in another place, " that all animate matter is endowed with a power, principle, or agent, essential to its organization and vitality," but that " it matters little what name we apply to this vitalizing principle ; whether it be the *calidum innatum*, the *principia vitæ*, the *chemical forces, animal electricity*, or *caloric*." He adds, " Of the essential nature of this *power* we know nothing ;" and that " the true philosopher leaves this question where he leaves the essential nature of every thing else."

To say nothing about the manifest absurdity of confounding powers, properties, and chemical forces, with a vitalizing principle, or agent—the plain meaning of the foregoing remarks, when analyzed, is, that Medical Philosophy has nothing to do with causation, or " the *imponderable*, infinite why and wherefore of things." That such doctrines have been long advocated by medical writers is true, " and pity 't is 't is true." But from the prominent part which Dr. Davis has recently taken in favor of a more thorough and philosophical education of physicians in these United States, he is certainly not the man we should have suspected of joining what may be called the ignorance party in medicine, by denouncing all efforts to discover the fundamental reason of things. It was observed by Lord Bacon, that "ignorance of the cause frustrates the effect; but that a knowledge of the cause becomes a rule in practice;" and that "the science of nature, rightly interpreted, is the knowledge of things through their causes." Mr. Hume also observes, that "if there be any relation among objects which it imports us to know perfectly, it is that of cause and effect, on which are founded all our reasonings on matters of fact; and that the only immediate utility of all science is to teach us how to regulate events by their causes." (*Essays.*) The application of these great truths to medical science, would well become what Bacon calls the "nobler sort of physicians;" and the plain inference from them is, that a knowledge of the cause on which all the operations of life depend, would become a sure guide in practice; but that ignorance of what the vitalizing principle is, and of the mode in which it operates, has rendered medical science "little better than a blind system of guessing."

Dr. Davis asks the question, as if in doubt, whether there are "at present existing a sufficient number of well-established facts and clearly-ascertained general principles, on which to found a rational and true system of medical science and practice?" That we have no fixed principles of physiology, pathology, and therapeutics, is generally conceded. And the chief reason is, that men have employed themselves in accumulating facts without order, until they resemble what Ovid calls "a rude and indigested mass;" the multitude and contradictory character of which, have tended rather to perplex than to enrich science. By a too laborious research into trifles, many have lost sight of the great leading facts that lie at the very foundation of medical philosophy. For example, there is nothing more certain, than that animal life is supported by respiration. Yet, who has so carefully analyzed this important function, as to determine with certainty whether life is maintained by the inspiration of certain gases, or by an imponderable agent, evolved by the chemical union of oxygen with carbon and hydrogen; whether animal heat be disengaged in the lungs, or in the course of the general circulation; whether Caloric and electricity be mutually convertible into one another, and modifications of one principle, without which all matter would be inert; why arterial blood, as it issues from the lungs and left side of the heart, has a higher temperature than after passing into the veins and right side of the heart; whether blood be formed in the lungs, where it is arterialized and vitalized, or in the general circulation; whether the Caloric which is conveyed to all parts of the body by arterial blood, is employed in transferring its particles to, and in uniting them with, the solids, as in the process of nutrition; how far the circulation of the blood is retarded by a loss of caloric, (as when the body is exposed to external cold,) or by a deficient supply of it by respiration; and how far this all-important function is diminished by an elevated external temperature, impure air, the depressing passions, concussion of the brain, compound fractures, and other severe injuries; above all, how far the natural condition of the blood is impaired by congestion, inflammation, or whatever retards its free circulation through the lungs where it is renovated, and what condition of the blood is essential to the existence of fever? The man who overlooks the bearing of these fundamental questions on physiology, pathology, and therapeutics, may certainly prescribe for the names of diseases as a routine practitioner, but he should not undertake to write on the philosophy of medicine.

That Dr. Davis is wholly unacquainted with many of the great leading facts connected with animal heat, and even with the history of what has been written on the subject, is evident, from an article published by him in the September number of this Journal, in 1845. In opposition to such a mass of evidence as is scarcely to be found in the records of science, he maintains in that article that animal heat is not the product of respiration, but "*the direct result of the internal organic actions;* embracing the functions of innervation, circulation, and nutrition." He might as well have said, that the Caloric which enables steam to give motion to an engine, is not the result of combustion in the furnace,—but of all the actions of the machinery,—as that animal heat is not the result of combustion in the lungs, but the product of all the organic actions. And, as he contends that the high temperature of birds is owing to the great activity of all their functions—to be consistent, he ought also to maintain, that the increasing temperature of space on approaching the sun, is owing to the velocity of the planets which are nearest to that luminary. But "if it matters little whether the vitalizing principle be called the *calidum innatum*, the *principia vitæ*, the *chemical forces*, *animal electricity*, or *caloric*;" to what does the reader suppose Dr. Davis attributes "the internal organic actions" that generate animal heat? This important question is answered by the Doctor himself, who maintains in the article above cited, that instead of combining with carbon and hydrogen in the lungs, "oxygen is in fact the natural stimulus of the whole nervous system, to every part of which it must be constantly applied by means of the arterial blood." Yet he observes in another place, that "each of the separate organs require for the healthy performance of their functions, the presence and influence of certain agents, as atmospheric air for the lungs, food for the alimentary canal, impressions through the medium of the external senses for the brain, arterial blood for the heart, nervous influence for the muscles, etc." Now the plain matter of fact is, that all the organs require for the healthy performance of their functions, the presence and influence of arterial blood; while it is equally certain, that if not constantly furnished with a due supply of animal heat by respiration, arterial blood cannot excite the heart to contract, the nerves to feel, the brain to perceive, the stomach to digest, the various glands to secrete, and the voluntary muscles to move at the command of the brain. Dr. Davis asks with an air of triumph, "If animal heat is dependent on the quantity of oxygen and carbon consumed, how are we to explain the increase of heat in all febrile and inflammatory diseases?" He might have added another question, if oxygen does not unite with carbon and hydrogen in the air cells of the lungs, how are we to account for the fact, that the temperature of blood in the lungs, left side of the heart, and arteries, is from 1½° to 3° higher than in the right side of the heart, veins, and solids? Had Dr. Davis studied my work on the mechanical, chemical, and vital agencies of Caloric, he would have found answers to the above, and to many other important questions which he seems not to comprehend.

He would also have found "the sources of many errors into which physiologists and chemists have fallen, in their investigation of the subject of animal heat indicated;" as observed by an able writer in Hays' Journal of January, 1846. But there is internal evidence that he never perused my work, excepting such isolated portions of it as were to be found in the Reviews.

It was observed by a celebrated critic, that "the thing most required in an author is, that he should know something of the subject on which he proposes to write." Nor is it less important that he should have a liberal and independent mind, superior to the prejudices of education, and capable of appreciating the force of evidence. Yet Dr. Davis has devoted the greater part of his essay in passing judgment on a philosophical work that he never read, and therefore cannot be supposed to understand; in the performance of which, he has not only done great injustice to himself, but to the author, and the medical profession at large. The consequence of this imperfect information has been, that he has discovered contradictions in my work, that have no existence but in his own imagination; while he has overlooked the great leading facts on which all the reasonings of the author are founded; especially those which tend to establish the unity of causation, and the immediate agency of Caloric in all the physical and vital operations of nature. Another consequence of not knowing what he was writing about,—he accuses the author of Caloric of investing that agent with the attributes of Deity; whereas, in reality, it is repeatedly described in my work as the active principle in creation, by which Infinite wisdom executes the laws of nature.

In the course of his crusade against all efforts to discover "the imponderable why and wherefore of things," Dr. Davis objects to the proposition that "caloric is not only the most potent and universal stimulant in nature, but the cause of stimulability;" because, as he thinks, it is equal to saying that Caloric stimulates itself. But the obvious meaning of the above sentence, as explained by the whole tenor of the work, is, that Caloric is essential to that vital property or condition of organized bodies, which renders them susceptible to the impressions of stimuli, whether we call it *irritability*, *excitability*, or *stimulability*, and whatever be the tissue in which it resides. It is also a fact, that if the organs and tissues be not duly supplied with animal heat by respiration; or, if their temperature be greatly reduced by the loss of Caloric, as when long exposed to intense cold; they can no longer respond to the action of stimulants, until resupplied with Caloric, which is therefore essential to their excitability. Even Dr. Davis must admit, that the excitability of the whole vegetable world, like that of the lower animals, is arrested during winter in the middle latitudes, but restored in spring, and augmented in summer, by a resupply of Caloric,—without any addition of atmospheric air or oxygen. It is also stated by Izaak Walton, that some breams were placed in a pond, which became one mass of solid ice the following winter; but that shortly after it was melted by the returning warmth of spring, they were found swimming about in perfect health. And Sir John Franklin tells us, that carp taken from Winter Lake, in the polar regions, froze as they were removed from the net, and remained brittle as ice,—(one of them for 36 hours;) but were restored to life, and leaped about with vigor when placed before a fire. We are further informed by Pallas, Spallanzani, and many other respectable authors, that the hedge-hog, the dormouse, the bat, and other hybernating animals, have often been reduced to a frozen state, in the middle latitudes of Europe, when the atmosphere was from 10° to 26° above zero; and that even their *irritability* was so completely extinguished, that they no longer responded to the stimulus of electricity, until aroused from their lethargy by the gradual application of Caloric. It is therefore evident that this agent is not only the most potent and universal stimulus in nature, but also the cause of stimulability; and that the charge of absurdity preferred against me by Dr. Davis, must be transferred to nature, whose proceedings, it must be admitted, are not precisely in accordance with his philosophy. In fact, it is now certain, that in the polar regions of Europe, Asia, and America, many species of animals remain in a frozen state during the greater part of the year, and again return to life when the flowers of spring begin to appear on the earth.

Dr. Davis observes, that " whoever shall patiently and carefully investigate all the phenomena of the physical world, including the agents called imponderable, in reference to their influence on the healthy and morbid conditions of the animal economy, will confer a great boon on medical science." Had the above sentence been suggested by a perusal of my work, its general scope and tendency could not have been better described. And if he had studied it with a moderate degree of attention, I should not have had the trouble of writing this article; while Dr. Davis would have found that the cause of life is not a whit more mysterious than the cause of evaporation; and that men have involved the noble science of physiology in profound obscurity, by resorting to metaphysics in preference to natural history, experience, and common sense. But Dr. Davis seems to have a sovereign contempt for all inquiries into the primary causes of things. In the ardor of his zeal against the unity of causation, he lays it down " as a sound axiom in philosophy, that where the presence of two or more substances are absolutely essential to the existence of a body in its natural and healthy condition, no one of them can be separated out and assigned as the cause of such existence." He adds, that as no living organized being can exist without the presence of atmospheric air or oxygen and water, we might with just as much propriety maintain that air or water is the cause of vital action, as caloric.

Had Dr. Davis perused the first volume of my work, he would not have confounded the active principle in nature with the elements of ponderable matter, or what the ancients called the *efficient* and *material causes* of whatever exists. For, he would have found abundant evidence, that without Caloric, the elements of ponderable matter could not exist in the liquid or gaseous state; and in short, that they would be perferfectly inert; consequently, that oxygen could not unite with carbon and hydrogen, as in the process of respiration, nor operate as a vital stimulant to any of the organs. Or had he studied the admirable directions of Sir John Herschel, for detecting among many unexplained phenomena their *common cause*, he surely would not have maintained that *oxygen* or *water* might just as well be considered the cause of vital action as Caloric. The rules proposed by Sir John for ascertaining which of two or more agents is the real or efficient cause, are the following:—1, *Invariable negation of the effect, with absence of the* *cause ;* 2, *Increase or diminution of the effect, with increased or diminished intensity of the cause ;* 3, *Proportionality of the effect to its cause.* Now it must be universally admitted, that during even a partial absence of solar caloric, the germination of seeds and the growth of plants are arrested, as during winter in the higher latitudes, without any deficiency of either oxygen or water. It is equally evident, that vegetation commences in spring, *increases* in summer, *diminishes* in autumn, and *ceases* in winter, without any increase or diminution of air, oxygen, or moisture. I have also proved, in accordance with Herschel's third rule, that the quantity of vegetable life throughout the earth, (like that of evaporation and chemical action,) is directly in proportion to the heating power of the sun ; *ceteris paribus;* diminishing from the tropical to the polar regions, and from the base to the summit of the highest mountains, even in warm climates. It follows then, from an application of the foregoing rules to the botanical history of our planet, that solar caloric is the producing cause of vital action throughout the vegetable world. And the man who resists this logic, founded as it is, on a vast array of concordant facts, must renounce reason as an instrument for the discovery of truth. That both oxygen and water are essential to the generation and development of plants, is universally admitted ; but oxygen will not combine with the carbon and hydrogen of the starch in seeds, so as to form sugar, without a due supply of Caloric. That air, water, and more than a dozen other substances, such as phosphorus, sulphur, chlorine, with several salts and metals, are also essential to the composition of organized bodies, is admitted by all well informed physiologists. It therefore follows, according to the axiom of Dr. Davis, that any one of these substances might as well be considered the vitalizing principle as caloric,—an argument which proves perhaps more than he intended; and which his most devoted disciples will find rather difficult to swallow.

But to be serious : does the Doctor believe that oxygen could exert any influence in maintaining the functions of animal life, without undergoing a chemical change in the lungs, by which Caloric is evolved and united with the blood ; or that any chemical action could go on without Caloric ? Does he believe that oxygen, light, electricity, or any other agent, without Caloric, is capable of producing all the phenomena of animal and vegetable life ? If so, we would recommend him to test his theory by the foregoing rules of Sir John Herschel, and to give us the result of his investigation in his next article on the philosophy of medicine. That light is essential to all the phenomena of coloration in plants, has been demonstrated by the experiments of Dr. Draper, who maintains that "the beams of the sun are the true nervous principle in plants," by which he evidently means the vital principle ; for he observes, that "to the yellow rays is assigned their nutritive processes, and to the blue their movements." (*Phil. Mag., Aug.* 1844, *p.* 104.) But it is well known, that if kept in air of the proper temperature, all the movements of plants, including the decomposition of carbonic acid by their leaves, their circulation, nutrition, and growth, are carried on in the midst of profound darkness ; and that all these vital processes are arrested during winter without any deficiency of solar light, electricity, or of oxygen. That caloric is "the true nervous principle;" follow from the admission of Dr. Martyn Paine, and many other distinguished medical authors, who very justly observe, that the loss of animal heat is followed by the loss of nervous energy; which therefore obviously stand in the relation of cause and effect.

But I must return to Dr. Davis, who charges me with "reasoning in a circle, by making animal heat at once the *cause* and the *product* of vital action." What then would he say of the philosopher who represented the universe as a circle whose centre is everywhere, and whose circumference is nowhere? Will he deny that Caloric is the cause of motion in a steam engine? Yet it is often so constructed as to supply itself with just fuel enough for carrying on the process of combustion, by which the Caloric is evolved that causes all its movements. It is therefore evident, that Caloric is both the cause and the product of its movements, which Dr. Davis would doubtless regard as "a self-evident absurdity." He has also made the notable discovery, that "life would be extinguished quite as soon by plunging a man in a bath of mercury at the temperature of 662° above zero, as at 30° below. And if the latter experiment proves that Caloric is *the* life-supporting agent, the former must prove it equally the life-destroying agent." By a very simple application of this powerful logic, we are led to the further discovery, that by raising the temperature of steam to 662° F., it would cause the boiler to burst and destroy the machine, just as certainly as that all its movements would be arrested by reducing the temperature of the steam; consequently, that Caloric is not the cause of motion in the steam engine; Q. E. D.

But I have proved by an appeal to the whole natural history of zoology, that the aggregate vital energy of animals, as manifested by their powers of digestion, circulation, secretion, nutrition, and muscular motion, is directly in proportion to the amount of Caloric they derive from the atmosphere by respiration during health, *ceteris paribus;* that all the functions of life are arrested by the loss, or by a deficient supply of caloric; that in hybernating animals, as in all the cold-blooded species, insects, etc., after being arrested in winter, they are revived in spring, augmented in summer, and diminished in autumn. It therefore follows, according to the rules of Sir John Herschel, that Caloric is the cause of vital action, although supplied by respiration, which is a vital process. Nor is it more wonderful, that the activity of birds, the swiftness of their flight, like the muscular energy of man, of the horse, dog, and other mammalia, should be in proportion to the magnitude of their lungs, and the quantity of their respiration, *ceteris paribus;* or that the velocity of a rail road car should be in proportion to the temperature of the steam by which it is impelled. In both cases, the moving agent is obtained by the combustion of carbon and hydrogen. In the latter, it is evolved in the furnace, communicated to the boiler, where it unites with water, and converts it into an elastic gas, which by acting on the piston, sets all parts of the machine in motion; whereas, in the former, it is disengaged in the lungs, where it converts chyle and lymph into the proximate constituents of blood, and raises its temperature, by which the heart is excited to contract, and send the vital stream to all parts of the system. And as the power of steam to move the piston is destroyed on parting with its Caloric in the condenser—so is that of arterial blood to maintain the activity of all the organs diminished or destroyed, by giving up the Caloric it receives in the lungs to the solids, which cannot be nourished and vitalized by dark venous blood,—for the simple reason that its temperature is reduced to an equilibrium with that of the solids, and its nutritive properties impaired, until again renovated by respiration. (See " *Caloric*," v. 2, p. 672.) But Dr. Davis seems not aware, that a difference between the temperature of arterial blood and of the solids, is absolutely essential to all the phenomena of animal life, and therefore one of the great leading facts which lie at the very foundation of physiology. The consequence of which has been, that his criticism on my views of fever is too crude and imperfect to require a serious reply. It reminds us of the individual mentioned by Sir Edward Bulwer, who when criticizing the Apollo Belvidere, overlooked all the fine proportions of the statue, and dwelt only on a slight speck which he found on one of its fingers.

For example, he finds it stated in a review of my work, that respiration is always diminished during the night, and arrives at the minimum about midnight, when all the energies of life are proportionably reduced, and yet that the specific office of sleep is a restoration of the caloric and vital energy that have been wasted by exercise, which he regards as a contradiction. But if he had read the chapters on exercise, sleep, and fever, instead of isolated extracts from them, he would have found no contradiction ; that although respiration is diminished from 20 to 25 per cent. during sleep, yet there is an accumulation of vital energy, *during health*, because it is not expended during sleep as it is by exercise ; but that when the vital properties of the blood are deranged, as they are in the morbid conditions of the body which predispose to fever, the vital energies are not augmented as during healthy sleep ; so that, as the coldest part of the twenty-four hours is just before sunrise, the chill that precedes fever comes on at an early hour, if the body be not well covered, or its temperature maintained by artificial warmth. He would also have found, that all the remote or predisposing causes of fever actually do diminish respiration, such as an elevated external temperature, impure air, the depressing emotions, a blow on the head, concussion of the brain, compound fractures, severe surgical operations, etc. ; all of which cause a deficient supply of animal heat, and thus tend to reduce the temperature of the blood, or to bring on a chill ; the consequence of which is, that the power of the heart, and the general activity of the circulation, are more or less diminished. Whatever seriously impedes the free circulation of the blood through the lungs, in which it is formed and vitalized, or its natural distribution throughout the system, deranges its healthy condition, and thus impairs its nutritive properties,—whether caused by the loss of Caloric, or a deficient supply of it by respiration. In fact, nearly all diseases, whatever their remote and exciting causes may be, and whether general or local, have their commencement in what Lord Bacon significantly calls, " stoppings and suffocations ;" that is, in a retarded movement of the blood in the whole or in some part of the body, as exemplified in the cold stage of intermittents, the torpor of congestive fever, inflammation of the lungs, pleuræ, stomach, and other organs.

Of all the causes which impede the natural distribution of the blood, by far the most common and influential is cold, especially when the force of the circulation has been reduced by a deficient supply of animal heat by respiration. Whether applied to the skin, the delicate and widely-expanded tissue of the lungs, or to the stomach in the form of cold drinks, cold rarely fails to paralyze the capillaries, and produce congestion or inflammation in some one or more of the organs. It is equally certain, that whenever a considerable portion of all the blood in the body is arrested or seriously retarded in its passage through any one or more of the organs, as in inflammation of the lungs, stomach, bowels, etc., it is prevented from circulating through the lungs; so that being no longer renovated by respiration, it is soon rendered unfit to nourish the solids; the consequence of which is, that the Caloric which is employed during health in uniting its particles with the solids, and in giving to them vital energy, no longer performs its natural office, but accumulates in the body, and causes the preternatural temperature of fever. In this way, the whole constitution becomes involved in the consequences of a disease that was merely local in its origin, and not by nervous sympathy, as supposed by so many pathologists. As a proof that the preternatural temperature of fever is owing to a derangement of the formative process, and the latter to a morbid condition of the blood, by which the Caloric obtained by respiration is prevented from combining its particles with the solids—Sir Benjamin Brodie relates the case of a man at St. George's Hospital, in London, laboring under a lesion of the cervical vertebræ, whose temperature rose to 111° F., at a time when his respirations were not more than five or six in a minute.* And it is quite certain, that in many cases of pneumonia, bronchitis, phthisis, and other morbid conditions of the body, its temperature is often considerably above the natural standard, while the process of respiration is greatly diminished. But just in proportion to the failure of the process by which Caloric is transferred to the tissues in combination with the arterial blood by which they are nourished and vitalized, is the prostration or general debility that attends fever, and the aggravated character of all the other symptoms, such as stupor, disorder of the senses, loss of appetite, nausea, vomiting, pains in the head, back, and limbs. These symptoms remain until all the blood in the body is sent through the lungs a sufficient number of times to restore its natural properties. Then, and not till then, does the animal heat obtained by respiration, perform its healthy office of combining the proximate constituents of the blood with the different organs, and of enabling them to discharge their respective functions.

Thus it is evident, that all the phenomena of inflammation and general fever, whether of high or low grade, may be traced to a vitiated condition of the blood, and the latter to a derangement of the process by which it is distributed through the lungs and general system; that all the blood in the body may become as thoroughly denaturalized by exposure to cold, which prevents its free passage through the lungs, as by the introduction of morbific agents into the system. Hence the vast importance of comprehending the cause of animal motion,—whether it be identical with the "calidum innatum, the chemical forces, animal electricity, or some unknown property of organized matter." But the question, what is the cause of vital action, resolves itself into the still more comprehensive inquiry, what is the cause of motion? For, it is absolutely certain, that all the phenomena of nature are the immediate effects of motion—whether manifested by the attraction and repulsion of atoms, the aggregation of planets, or their revolutions round the sun and upon their axes. All the operations of astronomy, meteorology, chemistry, and geology, are resolvable into motion, which is equally essential to the germination, growth, and decay of plants. It is by motion that the blood of animals is formed, circulated, and its particles united by millions every moment with their tissues, which live, grow, and decay, in obedience to the same general laws that preside over the movements of all worlds. Let the motion of the universe cease, and everything would be reduced to a state of practical non-existence. Let the motion of the blood in animals cease, and all vital action is at an end. We have also just stated what is equally important, that any considerable and continued retardation of this motion is the beginning of disease. It is therefore evident, that the *essence of motion is a unity,* whether of suns and systems, or of their minutest particles; and whether mechanical, chemical, or physiological. It also follows, that *the cause of motion is a unity,* since it would be absurd to suppose that two or more causes are required to produce an effect which is essentially one; and that a right knowledge of what it is, and of the laws by which it operates, would give to man the key of nature.

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* London Medical Gazette, for June, 1836.

What then is the primary physical cause of force and motion? The answer to this grand question is proclaimed by God Himself throughout all his works—in the sublime movements of the heavenly bodies—the upheaving of mountains, islands, and continents—in the circulations of the atmosphere, the transformations of chemistry, and in all the phenomena that make up the perpetual miracle of living nature. In the total absence of solar Caloric, if such a thing were possible, the beautiful round world, with its myriads of sentient beings, would be a motionless and lifeless desert. So universal was this belief from the earliest periods of civilization down to the commencement of the dark ages, that it may be regarded as the general voice of humanity, or a species of physical inspiration, dictated by the universe itself. It was by observing the birth of vegetation in spring, its growth in summer, decay in autumn, and death in winter, that our pagan ancestors were led to the discovery that elementary Fire is the active principle in creation. In the symbolical style of the ancients, this principle was personified and represented in the human form with wings, to denote the rapidity of its flight, and the mobility which it imparts to the universe of matter. Yes, it is on the wings of Fire that the waters of the ocean are elevated into the atmosphere in the state of invisible vapor, until on meeting with a colder mass of air it is condensed, and precipitated in the form of great natural shower baths. It is because our steam cars are impelled by Fire, that they fly over the earth with a velocity that outstrips the eagle. And it is because our telegraphic wires are winged with Fire, that they convey intelligence with the speed of lightning. Nay more, it is because the light of heaven is winged with the same *Æther*, that it travels with the swiftness of thought, and brings information of changes that are going on in the remotest systems which the telescope can descry. And it is because the birds of the air are so abundantly supplied with this vital essence, that they are enabled to wing their way from clime to clime, at the rate of six hundred miles per day. Lastly, it is because the heavenly bodies are impelled by the same *Æther*, that they fly through their orbits—some of them at the rate of more than a thousand miles per minute. The proof of which is, that their velocities are in proportion to the quantity of Caloric that comes to them from the sun; and the intensity of which, like the force of gravity, varies inversely as the squares of the distance from its source. Had Sir Isaac Newton investigated the agency of Caloric, electricity, and light, in connexion with his mathematical theory of natural philosophy, he would not have represented attraction and repulsion as inherent properties in the atoms of matter; nor would he have attributed the centrifugal force of planets to a primitive impulse, imparted to them when first created, and the centripetal force to an inherent power of gravity. Instead of regarding that great orb as the fountain of motion to the heavenly bodies, he made of it merely a huge magnet. And when he reduced the planetary space to a void, he left no means of explaining how the sun could act, even as a great magnet. But we cannot pursue this subject any farther at present. That Newton himself ultimately renounced the projectile force, the vacuum of space, and the inherent powers of ponderable matter as insufficient to explain the phenomena of nature, is evident from the fact, that in the later editions of his Principia, the work on Optics, and in a letter to Mr. Boyle, he refers all the operations of the material universe to *one* active principle, which he calls "the unknown *Æther*." And that this *Æther* is only another name for Caloric, is evident from the fact, that he represents it as the cause of solution, evaporation, the elastic force of gases, and even of animal motion, as I have shown in the work on Caloric. Yet Dr. Davis condemns me for maintaining that Caloric—the same *Æther*—is the cause of all physical and vital phenomena. He concludes his Essay on the Philosophy of Medicine by observing, "that after all our generalizations and our most rigid scrutiny, there is in all animate nature a *prima causa*, an inherent condition of organization, that forms a link, a step anterior to, and beyond human explanation."

If by the words *prima causa* Dr. Davis means the primary physical cause of vital force and motion, it is my honest opinion that he has greatly underrated the powers of the human mind, which, if rightly employed, is capable of discovering whatever is essential to the happiness of our race. But we are often told that "God has set bounds to human knowledge," and that "it is vain if not presumptuous to attempt the discovery of what He has glorified himself in concealing." Where then has the Author of nature fixed the boundaries of human knowledge? Were they settled when men regarded the earth as the centre of the solar system,—when the blood was supposed to be formed in the liver instead of the lungs,—when the mind was supposed to reside in the heart instead of the brain, and the nerves were confounded with tendons? No, we have not yet arrived at the limits of human knowledge. Nor is there any good reason why it should not go on extending until all the phenomena of nature shall be clearly understood. When God created man a little lower than the angels, it was that he might comprehend the laws of the universe, and make them subservient to the enlargement of human happiness. To those who maintain that "the essence of the vital principle is necessarily inscrutable," I would answer with Seneca, that "men have made all things difficult to themselves by disdaining things that are easy." Overlooking what is continually passing before their eyes, they have sought in the remote and obscure for the explanation of phenomena that are simple, if the light of experience and common sense be taken for a guide.

We are told by others, that "no other reason can be assigned for the phenomena of nature, than the Divine choice and ordination." This view has long retarded the progress of real knowledge, by preventing men of genius from seeking to discover the why and wherefore of things. Hence it is, that the whole problem of causation has been involved in mystery—until finally it has become almost fashionable to regard a frank confession of ignorance on the subject as a proof of wisdom, and any "attempt to comprehend it as visionary or frantic, if not a daring invasion of the province of Deity." That all the operations of nature are governed by infinite wisdom, is sufficiently evinced by the admirable beauty, order, and harmony of the universe. Yet if, in referring everything to the Deity, we overlook the instrumental agency by which He executes the laws of nature, we must suffer the penalty of ignorance in regard to what is most important to be rightly understood. In fact, the tendency of ignorance has ever been to refer the natural cause of things to supernatural agency, which can never be understood and reduced to laws capable of practical application. Hence it was, that during the dark ages, all physical science was held in contempt by Christian writers (according to Mr. Hallam), whose metaphysical disputes contracted and degraded the faculties of the human mind. Nor has the sun of knowledge yet dispersed the clouds of mysticism that hovered over Europe during the long reign of monkish ignorance. There are still men who would rather keep the world in darkness than join in any great intellectual movement not in accordance with established systems; who are too indolent to improve science by their own exertions, and yet who, if any one attempt the difficult task of "bearing the torch of truth into those dim recesses where no real light had ever shone," cry out. Presumption! or invoke the clamor of superstition, with a hope of drowning the voice of reason. It is certainly a disgrace to the moral character of mankind, that they have generally treated new truths in science with neglect or persecution. But there are men who have been so long accustomed to "grope in the noon-day as in the night," that, like the mole, they lose the power of vision, and prefer darkness to light.

More than a hundred authors might be quoted, who affirm that "all we know or can know of life is, that it is the sum of the organization and its actions;" as Dr. Bartlett observes, in his late Treatise on the Philosophy of Medicine. What wonder is it then, that such men as Napoleon, and many other master spirits of the world, should have regarded Medicine as the most uncertain of the sciences, on the broad ground of our total ignorance in regard to the cause of vital action, of what it is, how obtained, and the mode of its operation? "Who can be surprised," says Dr. Jackson of Philadelphia, in a recent Introductory Lecture, "that empirics should find favor with the public, when medicine formerly was and continues to be, at this time, to a great extent, empirical in practice?" (p. 13). It was truly said by a distinguished teacher of medicine in the West, (Dr. Drake), that *pathology must forever remain a sealed book to him who is ignorant of physiology;* and that the violation of this great truth has alloyed our profession with most of the quackery that disgraces it." He adds: "How can the curative effects of medicines be studied by him who is ignorant of their *modus operandi* on the body in health?" He might also have asked, how is it possible to practice

Medicine with safety to the patient, while ignorant of the cause on which all the actions of life depend, and without knowing in what the reparative powers of the living body consist? But Dr. Bartlett maintains, that "pathology is not founded upon physiology, and that a knowledge of the one does not presuppose a knowledge of the other." (Philosophy of Medicine, pp. 86, 194). He has even gone so far as to assert, that "no one phenomenon of physical science can be deduced or inferred from any other phenomenon." Has Dr. Bartlett then to learn, that the great fact made known by Copernicus, led to the equally important facts discovered by Kepler; from which Newton ascended to the law of universal gravitation? And was it not by applying the knowledge of this law to the phenomena of perturbation that M. La Verrier was led to infer the existence of a new planet? Was it not by his knowledge of Comparative Anatomy, that Cuvier was enabled to assign the genus and species of an animal by inspecting one of its fossil bones? And are we yet to learn, that the great fact discovered by Dalton, that bodies unite chemically with each other in definite proportions by weight, has shed new light on the whole science of nature, while it has facilitated the operations of the manufacturing chemist? It is, however, useless to reason with Dr. Bartlett on the theory of atoms, since he maintains with Faraday, that their very existence is hyphothetical, "or a mere fiction of the mind." (Op. cit. p. 35.) Why not proceed a step farther, and, with Bishop Berkley, deny the existence of matter altogether; or, with Emanuel Kant, why not resolve Caloric, electricity, light, and magnetism, into the mere forces of attraction and repulsion; or into undulations of the unknown *Æther*, about which so much has been written to so little purpose?

It was observed by Aristotle, that we may consider ourselves to know respecting anything, when we know its cause, its principles, its first elements. And the accomplished Cicero says, that "there is nothing more stupid (*stultius*) than to suppose that any thing could exist without a cause." He adds, in the very spirit of the Baconian philosophy, that "the cause of each event being known, then it can be known what will come to pass." Yes, noble Roman, and it may be safely affirmed, that no physical law, however comprehensive in its range, which does not include a knowledge of the producing cause, can ever become a sufficient guide in practice. If we know not the cause of digestion, circulation, secretion, nutrition, sensation, and muscular motion, — whether it be an inherent property of matter, the *calidum innatum*, the *principia vitæ*, the *chemical forces*, *animal electricity*, or *Caloric*, how is it possible to adopt the best means of restoring these functions to their natural state, when deranged? To enumerate all the evils that have arisen from ignorance of the vital principle, would require a volume. That it has prevented Medicine from taking its appropriate rank among the exact Sciences, has been often admitted by the most enlightened members of the Profession. But the Scotch Metaphysicians would have us believe that "the principal object of science is not the discovery of causes, but only of facts and general laws"—an avowal which is not only false in theory, and pernicious in practice, but a shameful excuse for ignorance of what is most important to be known. It is true, that Dr. Reid has offered some just remarks on the subject; for he observes, that "the name of a cause or agent is properly given to that being only, which, by its active power, produces some change in itself, or in some other being." Yet he adds, that "natural philosophers have never discovered the efficient cause of any one phenomenon." (Essays, Chap. VI). Dugald Stewart also observes, that "our knowledge of physical events reaches no farther than to the laws which regulate their succession." But he involves the whole theory of causation in metaphysical obscurity by saying, that "the words power and energy express the attributes of mind, not matter; while he inveighs against "the constant tendency to identify efficient with physical causes." (Philos. of the Hum. Mind, Part II. c. 7.) Next came the theory of Dr. Thomas Brown, who denies that there is any such thing as causation in nature, except the invariable antecedence and sequence of phenomena. This absurd doctrine was long ago anticipated and refuted by the philosophical Cicero, who rightly defines the word cause "as not merely that which precedes any event, but that which *productively* precedes it." (De Fato, 48, 49.) To conclude: the more profoundly we investigate the mechanism of the universe, fewer do we find the number of causes, until, in the last analysis, they are all resolvable into one, which is the principle of motion. And the same is true in theology: the higher we ascend towards the origin of knowledge, the smaller do we find the number of deities, until they are all resolvable into one eternal, omnipresent, and self-existent mind—the supreme Fountain of truth, law, order, and harmony.

Art. IV.—*An Essay on the Philosophy of Medicine, and the Spirit in which it should be studied and practised.* By N. S. Davis, M.D. New York, late of Binghamton.

Of what morbid changes are our organs susceptible, and what the agents capable of producing them? Perhaps there is no part of the whole science of medicine, concerning which medical literature furnishes so many contradictory opinions as this. Thus one class of men, viewing the living human body only as an intricate chemical laboratory, derive all diseases from excess or deficiency of some chemical ingredient. Another attributes all to a vitiated state of the fluids, and hence are called Humoralists. Another makes all morbific agents act directly on the nervous system, depressing the vital energy, and thus deriving all disease primarily from debility; while still another class can see nothing in the whole catalogue of maladies but excited action, irritation, and inflammation. Again, one tell us that all fevers are general and idiopathic in their origin and character; while another strives with equal zeal to convince us that they are all symptomatic, and traceable to local inflammatory disease. And shall I not add that there are still others, who not only claim to be learned, but who are freely honored with the title of M.D. by our most popular medical schools, who endow diseases with a spiritual nature, and derive them all from *three* primitive forms, viz., syphilis, sycosis, and itch. It requires only a cursory glance at the true philosophy of diseases to discern both truth and error in all these views, save the last, which is error without mitigation or mixture. Thus we may have disease arising from deficiency or excess of some chemical ingredient, from a vitiated state of the fluids, from direct depressing influences on the nervous system, from irritation, etc. The error consists in attempting to make a limited law universal, or in other words, endeavoring to deduce a general law from a limited number of facts. Another idea, the fallacy of which will soon be made to appear, is that of the primary *unity* of disease, about which there has been so much controversy from Paracelsus to the present day. While endeavoring to solve the first part of the question at the head of this article, we must constantly bear in mind, not only that each organ has its own special function, and an appropriate excitor to the performance of that function, but that each is composed of solids and fluids; the first variously organized, constituting different tissues, and the second of different colors and composition. Hence we should, *a priori*, infer that every organ is susceptible of the following abnormal conditions, viz., 1st, a simple increase or diminution of the natural action or function; 2d, a perverted or unnatural action; 3d, excess or deficiency of nutrition; 4th, alteration of structure; 5th, alteration of the fluids. The first conditions generally result from an increase or diminution in the intensity of the application of the natural stimuli. Thus, oxygen is the natural supporter of respiration; and if we increase its natural proportion, as when we inhale the protoxide of nitrogen, the respiration increases in frequency, the circulation becomes more rapid, and all the vital functions proportionally increased. On the contrary, if the quantity of oxygen is diminished, as when we inhale the air of heated and crowded apartments, or when we diminish the capacity of the lungs by external pressure, respiration and circulation are diminished in force if not in frequency, the nervous tissue does not receive its usual stimulus in duly oxygenated or arterial blood, a sense of languor comes over the whole system, the bowels become inactive, and all organic actions are depressed. Those modes of dress which confine the chest and diminish the capacity of the lungs, which are unhappily still too much practised by the female public, afford abundant illustrations of this state. Although these conditions consist in simple excess or diminution of natural actions, and therefore cannot properly be regarded as morbid, yet their long continuance invariably results in the second condition stated, viz., perverted or unnatural action. Thus the continued absence of a due quantity of oxygen in the blood, while it diminishes the energy, increases the irritability of the nervous system, creating morbid sensations, while the inactivity of the muscular tissue, particularly of the digestive canal, causes a retention of excretory matter, and sooner or later the development of some form of active disease. The same result is produced in a more direct way by a great variety of other causes, which will be more particularly alluded to under the 5th head, of alteration of the fluids. So long as the action of an organ remains simply exalted or depressed, a removal of the cause speedily restores the equilibrium. But when the action has become altered or unhealthy in its character, it often, nay, generally, continues after the cause ceases to operate. This is a distinction of great practical value, as will be seen by extending the illustrations already introduced. If we cease to inhale protoxide of nitrogen, after a few moments all its effects rapidly disappear; but let that inhalation be continued for hours or days, and we shall find the capillary vessels of the more delicate tissues becoming engorged by the unnatural force of the circulation giving rise to congestions, hemorrhages, and inflammations, particularly of the pulmonary organs; and the nervous system passes from a state of simple excitement to that of fixed derangement indicated by spasms, insensibility, or insanity. On the other hand, if we pass from a temporary stay in an atmosphere deprived of a part of its oxygen, the system speedily resumes its wonted vigor, while a continued residence in such an atmosphere would not only cause a diminution of all the organic actions, but such diminution, by lessening both the nervous activity and the secretions, would cause the retention in the blood of excretory or waste matter that should have been thrown off. Hence this excretory matter, circulating in the blood, is soon brought in contact with organs and tissues for which it has no affinity, and on which it exerts a direct morbid influence, giving rise to diseases of a typhoid and often rapidly fatal character. It is thus that we gain a clear idea of the manner in which simple exaltation or depression of the natural actions or functions results in perverted or morbid actions. Again, if the diminished supply of oxygen, instead of being constant, is frequently alternated, as in the case of a female who compresses the chest during the day and omits it during the night, instead of developing a train of typhoid diseases, such as jail fever, dysentery, etc., we shall destroy the equilibrium of the circulation, and the natural uniformity of all the functions, a state usually characterized by frequent palpitations of the heart, headaches, constipation, nervous irritability, great weariness on slight exercise, etc. We have thus far spoken of perverted or morbid action only as the result of protracted excess or deficiency of the natural action; but the same may result from a much more direct interference with the various organs: such is the introduction of indigestible substances into the stomach, the inhalation of foreign matter with the atmosphere, or its absorption by the cutaneous tissue, etc. But we shall revert to this point again, while examining the alterations of structure. The third conditions of an organ we represented as consisting in a simple increase or diminution of the healthy standard of nutrition. These are distinguished under the names of hypertrophy and atrophy. Hypertrophy consists in an increase of the bulk or weight of an organ, or tissue of an organ, by an excessive addition of its own proper substance. The excessive nutrition may cause a simple increase of bulk, without any alteration of density, or the excess of matter may be so added as to diminish the natural pores and cells of the organ, giving rise to hypertrophy, indicated by increased weight and density, without alteration of bulk. Or we may have excess of nutrition indicated by increase of the bulk of one tissue at the same time that we have atrophy or wasting of another belonging to the same organ. Consequently the organ as a whole may be neither increased in bulk or weight, and yet hypertrophy and atrophy exist in its respective tissues; but this state will generally be indicated by some alteration of form. Dr. Watson and others have mentioned another mode in which hypertrophy may take place without increase of bulk, viz., by the additional nourishment being deposited in the inner membranes of hollow organs. But we must deem this a fallacious distinction, for additions to the inner surface of a hollow organ, so as to diminish its capacity, just as much increases the *bulk* of the organ proper, as though it had been added to the outside. Hence we should term it hypertrophy without increase of *circumference*, instead of without increase of bulk. The immediate or proximate cause of hypertrophy is very generally represented to be an excessive supply of healthy nutritive matter in the arterial blood, while its remote cause may consist of anything capable of causing the flow of an unusual quantity of arterial blood to any particular organ or tissue. But if we remember that nutrition consists essentially of two processes, one of deposit and the other of removal, we shall readily perceive that an unusual sluggishness or diminution of the latter would produce the same effect as unusual activity of the former; and consequently that hypertrophy may exist without any real excess in the supply of nutritive matter or arterial blood. The influence of exercise on development is too well known to need a passing allusion. Atrophy or wasting, being directly the opposite condition from hypertrophy, presents us with an exact counterpart to each of the varieties and causes of the latter which have been named. The reader will not fail to notice the relationship existing between these conditions and those of simple increase or diminution of the natural actions; the latter being often the immediate cause of the former. The 4th abnormal condition, viz., alteration of structure, is much more complicated in its nature and more serious in its results. It may manifest itself in any of the following ways, viz., softening of the affected tissue, induration or hardening of the same, change of form, color, size, and texture. There is no tissue in the organs of the human body that may not become altered in consistence; but the nervous and cellular are much the most liable to such changes. Softening may result from simple defect of nutrition; the new particles not being deposited as fast as the old ones are removed, the tissue or organ necessarily becomes either shrunken or softened. In the latter case the softening becomes an accompaniment of atrophy. The disease called mollites ossium, which consists in a soft and flexible state of the bones, affords a good illustration of this condition. Again; softening may arise from simple defect in the cohesive or vital attraction existing among the particles of which the tissue is composed. Instances of this kind are most frequent in the mucous membrane of the stomach and the nervous tissue of the brain. It seems to have its origin in some defect of the vital forces or affinities, and is most apt to occur in old persons, or during the progress of diseases of a typhoid character. Another variety of softening has its origin in simple dilatation of the vessels of the affected part, as in varices. But perhaps far the most common variety of softening arises primarily from inflammation. To understand the philosophy of this, we must gain a clear idea of the parts essentially implicated in the inflammation, and the natural functions of those parts. It seems to be now very generally conceded, that the capillary extremities of the arteries constitute the primary seat of this disease. These capillary extremities possess the organic properties, irritability or susceptibility and contractility in a very high degree; and to these must be added the property common to all living organized tissues, viz., vital affinity. All these properties are peculiar to living organized tissues, and hence we must not confound the first with *sensibility*, which is a purely nervous function; nor the last with chemical affinity, to which it often acts in direct opposition. While these organic or vital properties are in their natural condition, no red globules of the blood are permitted to pass from the extremities of the arteries into the lymphatics or colorless capillaries; not because the latter are too small to receive them, as imagined by some, but because of that *discriminating* susceptibility or vital affinity which constitutes the basis of nutrition, and enables each vessel or tissue of vessels to select only its appropriate fluid. Pathologists have very generally arranged themselves into three classes on the subject of inflammation. The first making it consist in an altered condition of the nervous energy; the second in an increased dilatation and contraction of the extreme arteries, with increased rapidity of circulation, forcing the red globules into vessels adapted only for colorless fluid, etc.; while the third, which is at the present time much the most numerous, makes it consist in passive dilatation of the capillaries, slowness of circulation in the dilated vessels, and consequent accumulation of blood, increased redness, etc. The two latter classes equally adduce the results of microscopial observations in proof of their respective theories; and each are doubtless correct, to a certain extent, in their observations. But while the advocates of a nervous pathology of inflammation have mistaken an occasional *cause* for the thing itself, we think the two latter classes have equally mistaken the *effects* for the disease. Without occupying either the time or space necessary to give all the facts on which our conclusions are based, we will venture the opinion, that inflammation consists essentially in an *altered* or *modified* state of the *vital properties* of the arterial capillaries. And the specific effects which follow, whether it be contraction or dilatation of the capillaries, accompanied by increase or decrease in the rapidity of the circulation, or in place of either, a simple change in the vital affinity giving rise to morbid deposits, interrupted nutrition, etc., will depend on the nature of the remote and exciting causes.

Thus the morbific causes may produce such a change in the vital affinity of any particular tissue, that, instead of attracting its own proper nourishment, it attracts and causes to be deposited, matter foreign to the natural composition of the tissue, such as tuberculous matter in the lungs, carcinomatous matter in the mammæ, ossific matter in the arterial coats, fatty matter in the muscular fibre, &c.; and yet, during all these changes, there may be no perceptible change either in the size of the capillary vessels, the rapidity of the circulation in them, or in the color of the affected tissue. Or the causes may be of such a nature, as either to increase or diminish the *contractility* of the arterial capillaries, thereby producing, in the first instance, increased rapidity and force of circulation, and the carrying of red blood into vessels naturally containing only colorless fluids; and in the second, dilatation of the vessels, slowness of circulation, accumulation of blood, increased redness, &c. And if, with either of these, we have co-existing increase or diminution of the vital affinity, we shall have in the one case, effusions or deposits of lymph, swelling, induration, etc.; and in the other, increased vascularity, extravasation, softening of structure, or complete dissolution, as in ulceration. In a word, we shall have all the generally-admitted phenomena, and results of inflammation.

Again; the remote or immediate cause or causes may be of so paralyzing a nature, as to greatly diminish both the contractility and vital affinity of the vessels, thereby not only arresting nutrition, but giving rise to purely passive hemorrhages, petechiæ, etc. If the foregoing views of the vital properties, and of the action of various morbific agents on these properties, are correct, we see at once a ready solution of the many and conflicting questions which have arisen in regard to the nature of fevers and inflammations. We readily perceive that both these terms have been commonly used to designate a number of very different morbid conditions; while we have been taught, at the same time, to attach to them the idea of *unity*, as if each was the representative of some one definite morbid condition or action. Hence have arisen the almost numberless theories, founded on partial observation, yet claiming to be of universal application; and the perplexing contradictions in opinion and practice, with which medical literature abounds. But by studying the vital properties, those distinctive characteristics of organized matter, and carefully analyzing the alterations and modifications of which they are susceptible from the influence of external agents we obtain clear and distinct ideas of the *pathology* of diseases; while by the study of *morbid anatomy*, we are made acquainted with their results or effects. By reversing this proposition, and thereby substituting the study of morbid anatomy for pathology, many errors have been committed in modern times. If it be true, as is now universally conceded, that the vital properties to which we have alluded, really exist, and that the continuance of life is the result of the action of outward agents, as atmospheric air, aliment, etc., on these properties, then nothing is more clear, than that the modification of these external agents will produce a corresponding modified impression on the vital properties. And these again will induce corresponding modifications in the organic actions or functions. Thence the idea of a *unity* of disease, whether that unity consist in "primary debility," as stated by Dr. Rush; or increased excitement, or nervous irritability, as maintained by others, is an absurdity. There being, in fact, just as many primary diseases, as the vital properties are susceptible of primary deviations from their normal condition. These deviations we have already indicated, accompanied by their most prominent effects, and their further illustration is prevented by the narrow limits at present assigned us. But we think no close observer will fail to recognise in those deviations, a rational explanation of the origin and true pathology of those morbid actions which, in their progress, make up the whole catalogue of human diseases. While the attempt to refer such varied phenomena as are presented by the different forms of fever, inflammation, organic transformations, etc., to any one primary morbid condition, cannot be otherwise than an endless source of perplexity to every reflecting mind.

After what has already been said on the subject of softening and pathology in general, it is unnecessary to enter more into detail in reference to the remaining ways in which changes of structure are manifested. We have thus far spoken only of the morbid changes which take place in the solids, but the fluids of the system are equally liable to alterations from the healthy standard. Thus the blood, from which all the other fluids are derived, may be altered in its composition, its color, its fluidity, and its properties; and as it circulates in, and affords nourishment to, every part of the animal system, a right understanding of its deviations from the healthy or normal standard, is of great importance to the physician. The blood, though exceedingly complex, is, notwithstanding, very uniform in its composition so long as it is derived exclusively from materials which have undergone the process of digestion.

But the experiments of physiologists, as well as the every-day observation of physicians, have proved that it is constantly liable to changes from the absorption of indigestible materials introduced into the stomach, or foreign matter absorbed from the mucous tissue of the lungs, the cutaneous surface of the body, etc. Indeed, we believe it is now generally conceded, that all soluble substances brought in contact with the absorbent vessels in any part of the body, either enter into direct combination with the substance of the tissues, or are freely taken up and carried into the mass of the venous blood. But most of these substances are again speedily separated and cast out of the system by the excretory organs, as the kidneys, skin, etc., and hence their influence is either entirely prevented, or rendered comparatively slight and temporary. But there are some substances not so readily separated by the excretory organs, and which, by changing the composition of the blood throughout the whole system, exert a painfully-modifying influence over the *vital properties* themselves. To this class belong our most powerful remedial agents, as well as those more subtle poisons arising from vegetable and animal decomposition, or from the living animal system while laboring under particular forms of disease. The powerful influence which foreign agents are capable of exerting on the whole system through the medium of the blood, is well illustrated by the recent and very injudicious practice of inhaling ethereal vapor to prevent sensibility to pain. For though it is possible that this agent exerts some influence on the brain, through the medium of pneumogastric nerves, yet it is now well ascertained, that it is absorbed by the pulmonary organs, taken into the circulating fluids, and thereby brought in contact with all the tissues, diminishing the coagulability of the blood, making it vermilion color in the veins as well as the arteries, and essentially modifying the vital properties of the solids.[*] Some other agents produce a reverse effect on the color and consistence of the blood; making it dark-red in both arteries and veins, and producing equally marked changes in its properties. Until very recently, it has been supposed that only such substances are capable of being absorbed, as are presented to the absorbents in a state of solution. But if the experiments of Professor Oesterlin, are to be relied on, this supposition is not strictly correct. They fed rabbits with charcoal finely-pulverized, several days in succession, without any other apparent effect than a blackened state of the alvine evacuations. But on examining the blood taken from the mesenteric and portal veins, from the right cavities of the heart, etc., he found it to contain minute particles of charcoal, varying in size from 1-300th to 1-60th of a line.[*] Other animals fed on Berlin blue, gave the same result. This would seem to prove, what we had before suspected, that even solid substances in a state of extreme division may be taken up by the absorbents of the alimentary canal. From the foregoing remarks, the reader will infer that we belong to no exclusive class of pathologists, whether humoralists, solidists, or neuralogists; but we are satisfied, that every part of the human system, whether solid or fluid, is susceptible of morbid changes or deviations from the normal condition; and that every such deviation is indicative of some change in the outward agents acting on the affected part or parts, or in the inherent vital properties, or in both conjoined.

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[*] For proof of the above facts, see September No. of this Journal, pages 279–80.

[†] See same Journal, p. 273.

The importance of such deviations will be measured by the nature of the alteration, and the relations of the affected part to the great vital organs of the system. Again; primary deviations from health in one part, often become the immediate cause of greater deviations in still more important parts.

This is well illustrated by the action of blood, rendered abnormal by the addition of foreign substances, on the brain, heart, and other important organs; or, on the other hand, by the influence which the primary lesion of an important organ exerts over the condition of the blood. For instance, a primary inflammation or other disease of the kidneys by which the formation of urine is diminished or entirely suppressed, allows the ingredients of urine to remain unseparated from the blood, to be circulated in contact with other organs and tissues, for which they have no natural affinity, and on which they consequently exert a more or less deleterious influence. Thence we may close this branch of our inquiry with the following distinct propositions, viz.: 1st, Every part of the animal system, whether solid or fluid, is subject to deviations from the healthy condition in the various ways to which we have alluded. 2d, Every such deviation in the solid parts is the result of some modification of the vital properties in the part or parts affected. And 3d, Every such modification of the vital properties, is the result of direct or indirect expressions of outward agents. This leads us legitimately to the consideration of the second branch of the inquiry stated at the commencement of this article. But this task must be reserved for a future occasion.

P. S.—In our previous article we alluded to the great work of Dr. Metcalfe on Caloric, and charged the author with having invested the latter substance with some of the attributes of Deity. To this Dr. Metcalfe took exception, on the ground of its implying the entertainment of *infidel* sentiments on his part. We cheerfully assure the reader that nothing was further from our intention than such an imputation. Our expression had reference solely to the almost boundless influence and qualities ascribed to Caloric, and not in any degree to the moral character or religious sentiments of the author.

ART. V.—*Cases of Staphylorraphy, with some general Remarks upon the Operation.* By ALFRED C. POST, M. D., Surgeon to the New-York Hospital, &c.

CASE I.—C. D. T. Ferris, a young man 20 years of age, presented himself at the Clinique of Castleton Medical College on the 21st August, 1843. He had a congenital fissure in the median line, extending from the posterior edge of the bony palate through the velum palati to the extremity of the uvula. His articulation was very indistinct, so much so as to be almost unintelligible. Having placed the patient in a favorable light, and depressed the tongue with a curved spatula, I held successively the two edges of the fissure with a double hook, and excised them with a scalpel. I then introduced three sutures by means of a curved needle attached to a handle, drawing out the threads with a forceps. I found considerable difficulty in drawing out the threads, in consequence of the needles being too little curved, so that their points were necessarily thrown very far back. The patient fainted during the operation, which was somewhat protracted. The quantity of blood lost was very small, scarcely exceeding an ounce. In tightening the ligatures, I found some difficulty in keeping the first knot tied until it could be secured by a second. I accomplished it by having the ends held by an assistant between the blades of a forceps. The gentleman to whose valuable assistance I was so much indebted on this occasion was Doctor Ayres, now of Brooklyn, but at the time referred to, a student of Castleton Medical College. After the knots were tied, so much tension existed in the velum, that I feared that the threads would cut through the edges of the wound: to relieve this tension, I made an incision on each side parallel to the wound, and extending through half the thickness of the velum, according to the method proposed by Dieffenbach. The first day after the operation, the patient was allowed to swallow nothing but a teaspoonful of milk every hour, and to hold ice in his mouth. He was directed afterwards to take a pint of beef-tea daily for a week, to be swallowed very slowly and in small quantities at a time. He was also directed to confine himself to liquids for another week, but to take them somewhat more freely.

Aug. 24th. I examined the throat, and found the edges of the wound in perfect apposition, and very little appearance of inflammation. The patient complained very little of soreness of the throat. On the evening of the same day I left Castleton.

During the month of May, 1844, I visited Castleton again. I did not see the patient, but I was informed by several persons who had seen him, that the operation had been entirely successful.

Case II.—Miss B., ætat. 25 years, was affected with a congenital fissure of the velum, very nearly resembling that of Ferris. I performed the operation on the 21st Nov., 1845. The steps of the operation were the same as in the former case, except that I was provided with needles which were curved laterally, so that I was enabled to introduce the sutures with greater facility. The tension of the velum was very considerable, and was only partially relieved by the incisions which were made on each side of the fissure. A few minutes before the operation, the patient had been mesmerized by a Doctor Strong, and at the time of the operation she sat on a chair with her head thrown back and her eyes closed, as if she were asleep. With this part of the proceeding I had nothing to do. She did not cry out during the operation, but in my opinion she gave unequivocal evidences of sensibility by shedding tears, biting my finger, and taking hold of my arm to prevent me from hurting her.

I had no opportunity of directing the treatment after the operation, as the patient was taken to Brooklyn without my knowledge, and I could not obtain any information as to her place of residence until after the lapse of four days. On the 26th I saw her, and found that partial separation had taken place. On the 29th I saw her again, and found that the separation was complete.

Case III.—Ebenezer Locke, aged about 25 years, had congenital hare-lip, complicated with fissure in the median line, extending entirely through the bony and soft palate. The hare-lip had been operated upon successfully in childhood, and the alveolar portions of the upper jaw-bones had come into contact: but the fissure continued throughout the whole length of the hard and soft palate, averaging five-eighths of an inch wide in the bony palate, and wider in the velum. The columna nasi was entirely absent. The patient was in good health, and of a firm and decided character. He had no difficulty in deglutition, but his speech was thick and indistinct. On the 9th Oct., 1846, I operated mainly according to the plan recommended by Fergusson in an essay which he published in the Medico-Chirurgical Transactions for 1845. Sitting before the patient, I seized the edge of the uvula on the left side with Assalini's forceps, and rendered the left side of the uvula tense: then with a double-edged knife, I pierced the velum near the margin of the fissure and a quarter of an inch from its lower extremity, and cut up as high as the upper part of the velum, separating a narrow strip from the margin through its whole length, except at the inferior extremity, where the excision was completed with scissors. Then standing behind the patient, I removed a strip in like manner from the right margin of the fissure. I then, with a lancet-pointed scalpel curved flatwise, divided the levator palati on each side just below and behind the orifice of the Eustachian Tube. With blunt-pointed curved scissors, I then successively divided the anterior and posterior pillars of the palate on each side. Lastly, I made a transverse incision on each side along the junction of the velum with the palatine bone, dividing the buccal mucous membrane, and the submucous cellular tissue, but not extending through into the pharynx. After this, I passed three sutures, one near the junction of the velum with the bony palate, one about the middle of the velum, and one near the end of the uvula. I passed the threads through the left side of the fissure from before backwards with Weiss's curved needle fixed in a handle, and through the right side from behind forwards with very small curved needles held by Weiss's needle-holder. They were passed with ease, and the margins of the fissure were readily brought into contact. There was no tension: when the first knot was tied, there was no necessity for holding it with forceps while securing the second. The contact was perfect, and there was no strain upon the threads. During the operation, the patient frequently gargled his mouth with a strong solution of alum, an ounce to a pint of water, and the fauces were sponged with the same. The bleeding was moderate during the operation, but a slight oozing of blood continued for several hours afterward. The patient was directed to keep quiet, to avoid talking, coughing, sneezing, hawking, etc., to take no solid food, and to be very cautious, in taking liquids, to swallow them slowly and with as little effort as possible. For the first two or three days he took only milk, then milk thickened with meal, then soup, custard, rice-pudding, etc. On the 13th October, I removed the middle suture, and, on the following day, the upper one: the lower one had probably cut its way through, as I could not find it. Union took place perfectly throughout the whole extent of the wound, even to the tip of the uvula.

On the 21st October, union having become firmly consolidated, I undertook to close the fissure in the bony palate, according to the method suggested by Dr. J. Mason Warren, of Boston. (See New-England Journal of Medicine, April, 1843.) With a lancet-pointed scalpel curved flatwise, I peeled off the mucous membrane from the bony palate, from the margin of the fissure nearly to the gums. This dissection was attended with a pretty copious flow of blood, to restrain which, a solution of alum was freely used. The portions of mucous membrane detached from the two sides nearly met throughout the anterior half of the fissure, but they were not much approximated at the posterior part. I then passed two sutures through the detached membranes on the sides of the fissure, one a little in front of the middle of the bony palate, and the other a little behind the middle. In tying the knots, the anterior one seemed quite easy; there was some strain upon the posterior one. I passed a third suture near the junction of the bony palate with the velum, but could not bring the edges together. I then made free incisions on each side parallel with the fissure, but still the edges could not be brought into contact. I therefore withdrew the suture, leaving an opening at the junction of the bony palate with the velum, about large enough to admit the end of a finger. The same regimen was enjoined as after the first operation.

Oct. 25th. I removed the sutures. Union had taken place nearly as far as the sides had been brought into contact.

Nov. 6th. Union has become firmly established at the anterior portion of the bony palate, including a little more than half its length: in the midst of the united portion is a small hole, about large enough to admit a common probe. At the junction of the hard with the soft palate is an oval opening nearly an inch in its long diameter. The patient's speech is considerably improved.

Nov. 7th. To fill up the hole which remained, I performed the following operation:—I again detached the mucous membrane of the hard palate from the bone with a curved knife as before; I then made an incision on each side parallel with the long diameter of the hole; I then made an oblique incision on each side from the lower end of the hole outward and a little downward upon the velum, extending half through its substance. Having refreshed the edges of the hole, I then brought the flaps together by means of two sutures. The parts when brought together were considerably upon the stretch, so that it was necessary to hold the first knot with a forceps while tying the second. I then passed one of the ends of the lower ligature through the upper edge of the velum, which I drew up and secured with a surgeon's knot. In this manner the chasm was entirely filled up.

Nov. 11th. I withdrew the sutures. The adhesion of the transplanted flaps to the velum had given way, and the flaps were slightly separated from each other at the lower part. The spaces from which the flaps had been taken were becoming filled with granulations. With a camel's hair pencil, I applied freely to every part of the wound twice a-day a solution of nitrate of silver, gr. v. to ʒj.

Nov. 18th. The flaps have separated entirely from each other: the right flap is also separated from the velum, and at the lower extremity from the adjacent portion of the mucous membrane investing the bony palate. The left flap adheres to the velum. The wound is granulating freely, and there is a prospect that the opening may be diminished in size. It appears to be now a little smaller than before the last operation. As the patient is anxious to return to his home in the country, and as his strength has become somewhat reduced by the repeated operations and the regimen to which he has been subjected, I have determined to postpone until another season any further attempts to close the aperture which remains.

Oct. 8th, 1847. I have not heard from the patient since the last date.

Case IV.—This differs essentially from those which precede it, the fissure being on one side of the median line, and not being congenital, but the result of a surgical operation.

Stephen Tagg, seaman, born in Boston, aged 20 years, of a rather slender frame and cachectic appearance, was admitted into the New-York Hospital, April, 1845.

The patient became conscious of some obstruction to his breathing about six months before he came to the hospital: he was aware of the presence of a tumor in his throat only six weeks before his admission. On examination soon after he came to the hospital, I ascertained the following facts:—The pharynx was occupied at its upper part by a large tumor which depressed the velum and carried it forward far in advance of its usual position. A finger could be passed through the fauces, and swept around the most depending part of the tumor so as to show that it did not adhere to the velum. The tumor was hard and uneven on its surface. On raising the velum, a portion of the tumor could be seen of a pale color, and bleeding slightly when rudely touched. The patient has suffered more or less from pain shooting through the tumor, and has had occasional hemorrhages which were not very profuse. I seized the tumor through the fauces with a tenaculum, and made an unsuccessful attempt to pull it away.

May 2d. I passed a wire noose by means of a double canula along the floor of the right nasal cavity, and then, passing my finger through the mouth into the fauces, endeavored to pass up the noose over the upper surface of the tumor to its neck; but the breadth and height of the tumor were such that I could not accomplish the object which I had in view. After a number of unsuccessful attempts to noose the tumor, I made with a scalpel a free division of the velum from its adherent to its free extremity a little on the right side of the median line. This brought the tumor more into view, and enabled me to carry up my finger higher on its posterior and upper part: but still I could not pass up the noose so high as to reach the neck of the tumor. I then seized the morbid growth with a tenaculum, and drawing it down, I cut off with a guarded bistoury its most prominent part. Hemorrhage took place to the extent of about eight ounces. Having gained additional space by this section, I made another effort to embrace the remainder of the tumor in a wire noose. I could not reach the neck, but I embraced a large portion of the tumor and tightened the wire, which at once arrested the hemorrhage. I then brought the edges of the wound in the velum together with three sutures, which I accomplished with great ease by means of Weiss's Staphylorraphy needles. Directed the patient to take no food but beef-tea, and that in small quantities at a time.

3d. Found patient in as comfortable a condition as could be expected. He breathes more freely than before the operation. Pulse 92. Skin natural. I tightened the noose. Continue beef-tea with the addition of a little thin gruel.

4th. Complains of fetid discharge—pulse 120. Tightened noose. Continue nourishment as before.

5th. The lower suture in the velum has ulcerated through on one side, and the edges of the wound are pressed asunder by a projecting portion of the tumor. Tightened noose.

7th. The noose has been tightened daily. Yesterday the second suture came away from the velum: there seems to be no union except at the upper part of the wound. The tumor as seen through the fissure of the velum is nearly black, and it emits an offensive odor. Pulse 96. In accordance with the patient's request, I allowed him fresh fish in addition to his beef tea and gruel.

8th. The tumor has descended lower in the throat; the suture of the velum has given way entirely. I attempted with the wire to pull the tumor away, but the wire broke. I then seized the tumor with a tenaculum, and with very little force drew away so much of it as had been strangulated by the wire. The mass was about of the size of a hen's egg, and of a very dark color: a very moderate hemorrhage followed the evulsion of the tumor.

9th. The patient breathes more freely than before the tumor was removed; but he still feels an obstruction in the right nostril. He has a good appetite; pulse 112; tongue moist, but somewhat furred.

10th. He does not appear so well this morning; he complains of pain in his head and in his right ear. Pulse 140. No desire for solid food: stomach somewhat irritable. Emp. Epispast., Nuchæ.

12th. Pain in head and ear somewhat relieved yesterday, but has returned to-day. Pulse 160. Tongue moist and a little furred. Ordered spt. mindereri., ℥ ss., every two hours.

15th. Patient much more comfortable. Febrile excitement greatly diminished. Pulse 104.

June 3d. Patient has continued to improve. The tumor has apparently remained stationary. To-day I made an attempt to dissect off the mucous membrane from the bony palate, and to remove a portion of the bony floor of the nasal cavity, in order to expose the tumor more fully, and to facilitate its removal. The hemorrhage during the dissection was very copious, and the blood flowing into the pharynx occasioned a very disagreeable sense of choking. Finally, the patient became so much disconcerted, that he absolutely refused to allow me to go on with the operation. For some time afterward he was in a state of partial syncope, but under the influence of stimulants he gradually recovered from that condition.

June 13th. The patient appears about as well as before the last attempt to remove the tumor. To-day I made another attempt to pass a noose of wire over the tumor, but was unsuccessful.

August 7th. To-day I drew the tumor down into the fauces with a tenaculum, and then seized it with a strong pair of curved lithotomy forceps, and after a number of attempts, in which I tore off small portions of the tumor, I finally succeeded in twisting off the principal mass, which was about two inches long, one inch wide, and half to three-quarters of an inch thick. There was free hemorrhage amounting to about sixteen ounces, and the patient became faint. A small portion of the tumor remained attached to the roof of the pharynx just behind the vomer.

August 22d. After the last operation, the patient appeared much prostrated, with a small frequent pulse and a pale complexion. He has, in some measure, regained his strength, but he still appears very pale. Within the last two or three days, he has been directed to take sulph. ferri gr. $\frac{1}{3}$, with extract gentian gr. iij. three times a day. 30th. The surface from which the tumor was pulled away is suppurating, and the small remnant of the tumor has diminished somewhat in size.

Dec. 16th. Soon after the last report, the surface from which the tumor had grown was completely cicatrized, and there has not since appeared to be any tendency to the reproduction of the morbid growth. To-day I pared away the edges of the fissure, partly with a bistoury and partly with scissors, and then introduced three sutures. In cutting away the left margin of the fissure which was towards the median line, I had no difficulty; but on the right side, which was towards the side of the palate, I found that the incision necessarily encroached on the arches of the palate, and it was completed with much difficulty. About a pint of blood was lost during the operation. On attempting to bring the edges of the wound together, I found that they could not be brought in contact without great tension. I accordingly made a deep parallel incision on each side, and then drew the edges together, and then tied the sutures. The patient was directed to keep quiet, and to observe the same regimen as after the previous suture of the palate.

17th. The velum appearing somewhat inflamed, I directed a solution of nitrate of silver gr. v. to ℥j; to be applied once a day with a camel's-hair pencil.

19th. Apply solution twice a day.

20th. The edges of the wound have separated in the middle, and one of the threads has cut through on one side. I removed all the threads.

21st. The edges of the wound have separated throughout its entire extent.

The cure of cleft palate by a surgical operation, has not attracted the attention of surgeons until within the last thirty years. It is true that a solitary operation was successfully performed nearly a century ago, by a French dentist, named Lemonnier. But the operation does not appear to have been repeated until the year 1816, when it was performed, without success, by Graefe of Berlin. In 1819, Roux of Paris operated with complete success upon a medical man of the name of Stephenson. Since that time, the operation has been repeated, with variable success, a great number of times, by numerous surgeons in almost all parts of the civilized world. Important improvements have been introduced, both in the performance of the operation, and in the after-treatment. But still the operation is performed with considerable difficulty, and much uncertainty hangs over its results. I propose briefly to allude to some of the principal difficulties of the operation, and the most approved methods of obviating them.

One source of embarrassment in the operation is the depth of the cavity in which it is performed, and the inability or unwillingness of the patient to keep the mouth widely opened. It has been proposed to obviate this difficulty, in some measure, by the use of a speculum oris, having a powerful screw, by means of which the teeth of the lower jaw are widely separated from those of the upper. A variety of instruments has been contrived for this purpose, but they are all objectionable on account of the space which they occupy. The operation should not be performed until the patient has arrived at years of discretion; and if it be deferred until this period, the patient will generally be able to keep his mouth widely opened without the aid of the speculum. Difficulty is sometimes experienced in incising the margins of the fissure. The best method of accomplishing this part of the operation appears to me the following: seize the left margin of the fissure, near the end of the uvula, with a clawed forceps or hook, and render it moderately tense; then with a sharp-pointed narrow bistoury perforate the velum from before backwards near the fissure, and a quarter of an inch above the extremity of the uvula, and cut upward as far as the junction of the velum with the bony palate. Then incise the right margin of the fissure in the same manner; and finally, with a sharp knife or scissors, complete the incision of the edges of the uvula. The next difficulty occurs in the introduction of the sutures. The facility of passing them depends very much on the shape of the instruments which are employed. I have made trial of several methods, but am best pleased with the course which I adopted in the case of Locke, (Case III.). This method consists in passing the sutures on the left side from before backward by means of Weiss's staphylorraphy needle, which is attached to a long handle and curved laterally, drawing out the thread with a forceps; and in passing the sutures on the right side from behind forwards by means of very short and very curved needles held in a needle-holder, and drawn through with forceps. To relieve the tension which exists in almost all cases when the threads are tied, a variety of expedients have been resorted to. The principal methods adopted for this purpose, have been the deep lateral incisions parallel with the fissure, as practised by Dieffenbach, the partial detachment of the velum from the bony palate, the division of the anterior and posterior arches of the palate, and the division of the levatores palati muscles. M. Fergusson is entitled to great credit for having suggested and carried into effect the last-mentioned method, viz., the division of the levatores palati muscles, which, in my opinion, contributes more than anything else to relieve the tension of the velum. Several of the methods alluded to may be advantageously combined, as in the case of Locke, (No. III.). With regard to the regimen to which the patient is subjected after the operation, a diversity of practice has been pursued by different operators. M. Roux enjoined entire abstinence from food and drink for several days after the operation: and a number of other surgeons have recommended the same course. It appears to me that this plan is not founded on correct principles; and there are facts on record which show that it is injurious in its practical results. By the dryness of the mouth and fauces which it induces, it provokes the muscles of the palate to increased action, and thus has a tendency to defeat the success of the operation. The privation of food and drink also produces a considerable amount of constitutional disturbance which is likely to interfere with the process of adhesion, and which, in delicate and irritable persons, may even lead to a fatal result. On the other hand, the unrestricted use of food and of drinks would operate injuriously, by calling into action the muscles of the fauces and disturbing the adhesive process. The best plan is to allow a moderate use of nutritious liquids, and of soft solids, such as custards, jellies, etc., directing the patient to swallow them in small quantities and with as little effort as possible.

I am inclined to the opinion that it is better to leave the sutures in place four or five days in ordinary cases, instead of removing them at the end of the second or third day. as recommended by Dr. J. Mason Warren, as the removal of the sutures at so early a period, must be attended with great risk of a separation of the edges of the wound.

ART. VI. *Summary of, and Observations upon, the Medical Practice of the New York Hospital, in the months of July, August, and September,* 1847. By JOHN H. GRISCOM, M. D. Attending Physician.

THE number of patients treated during my term of attendance the present year, (July, August, and September,) I think is unprecedented in the annals of the Institution. For a greater portion of the time, every bed that could possibly be accommodated was occupied, and on several occasions many were obliged to be denied admittance.

Patients remaining, June 30th, - - - - - - - -		174
" admitted in July, - - - - - - - - -		185
" " " August, - - - - - - -		208
" " " September, - - - - - -		215
Total treated in the three months,		782
Patients discharged in July,	214	
" " " August,	218	
" " " September,	211	
	643	643
Remaining, October 1st,		139

Of the discharges in July, there were		In August,		In September.	
Cured,	172	Cured,	173	Cured,	156
Relieved,	5	Relieved,	6	Relieved,	9
Transferred,	1	Disorderly,	5	Request,	13
Disorderly,	2	By Request,	4	Died,	31
By Request,	10	Died,	30	Eloped,	2
Died,	24				
	214		218		211
				Total,	643

There were, on an average, about 150 patients under treatment daily, for the term of 92 days; and the deaths from all causes, were 85, being less than one per day.

TYPHUS OR SHIP FEVER.

The *Treatment* of this disease was based upon the idea of its proximate cause being *mainly* a vitiated, deficient and innutritious condition of the blood. I say *mainly*, because I have no particular theory as to the real nature of the disease, whether produced by a specific poison entering the system from without, as is maintained by some, or by a partial decomposition of the blood by others, or by a disorganization of the solids by a third party, etc. The most important point in my estimation to be considered, being its treatment, I have been disposed to look chiefly at its *remote causes*, and to endeavor to ascertain from a contemplation of them, what is required to overcome their effects.

The remote causes are two in number: 1st, an insufficiency of food, and 2d, the inhalation of a vitiated air. The first of these must necessarily produce an exhausted nutritive condition of the blood;—that fluid, under a protracted privation of nutriment, will not only be diminished in quantity, but its red globules, it is reasonable to suppose, will become deficient in number and in those properties which are believed necessary to the health of the organism. Both these consequences are aggravated and increased by the second cause; for in the atmosphere of the steerage of a passenger ship, crowded to the utmost limit of the law, there must necessarily, one may easily believe, be not only a deficiency of oxygen, but an actual presence of other gases, whose chemical action upon the blood cannot but be deleterious, depriving it still further of its healthy properties.

I may be told that this brief view of the causes and character of ship fever is insufficient to account for the *febrile symptoms,*—that there is nothing in starvation, or want of oxygen, or the presence of deleterious gases, to produce *fever.* If any one who should raise this objection to the insufficiency of my position will tell us *what fever is,* I might then be able to discover a connection between it and the causes I have named. Until the *specific* nature of fever is demonstrated, it is in vain to argue about the nature of its causes, or to endeavor to trace the modus operandi of the influences which are supposed to produce it. But if we are to understand by fever, the frequent pulse, hot skin, thirst, etc., etc.,—then I answer, that ship fever, as it has been presented to us this year, is in very many instances, not a fever at all. Repeatedly have we seen patients brought from on ship board without a single symptom of fever; with pulse below the natural standard, skin moist and cool, fauces not dry, no thirst, and yet the body covered with petechiæ, the eye congested, the senses benumbed, and most of the other symptoms of the *Typhus condition.*

Confining our attention to this simple view of the causes of Ship Fever, we find little else to do than to counteract their effects. The means for this are clearly indicated, and may be classed under three general heads.

1st. To maintain the continuity of the body, and sustain its nervous energy, by stimuli, until we are enabled,

2d. To improve the quantity and character of the blood by appropriate nourishment; and

3d. To oxygenize the blood thoroughly by pure air.

For the first indication, after giving a warm bath, (an invariable rule where it could be borne), the most powerful and direct stimulants were found necessary. Brandy and carbonate of ammonia constitute the main reliance; and during my attendance I have been astonished to observe what enormous quantities of these remedies will be borne in this disease. As an instance, I may mention the case of a girl about 15 years of age, who took about 5 pints of brandy every day for 5 days, and for two weeks longer from 2 to 3 pints daily. At the same time she was taking 10 grains of carb. ammonia every 15 minutes, amounting to two ounces in twenty-four hours, besides soups and other nutriments. And all this without the least manifestation of excitement, or injury to the stomach, or bowels, such was the intensity of the disease. She was under this treatment nearly three weeks, before any very decided symptoms of improvement were manifested;—unfortunately, before time elapsed to observe the ultimate result in this case, and just as she was beginning to feel the good effects of the treatment, the patient had to be discharged "relieved," being removed from the Hospital by her parents. Many other cases might be cited, in which it was necessary to continue, night and day, to ply these remedies unceasingly;—a very short respite was frequently sufficient to put the patient back decidedly, and a vast number of the cures were undoubtedly due to the faithfulness with which these means were applied. Where the circulation was unusually languid, or the extremities were cold, sinapisms and artificial warmth were very valuable.

To answer the second indication, the patients were fed at frequent intervals with nutritious soups, arrow root, or gruel, with wine or brandy, milk punch, egg-nog, beef, chickens, etc., etc.

Upon the third indication, pure air, I may remark, that on several occasions the necessity for it was strongly marked. The pressure for admissions several times became so urgent, that the bounds of prudence were quite overstepped, as was indicated by the fact that in certain of the wards which were most crowded, and contained the worst cases, the recoveries became more protracted, and the relapses more frequent. It became necessary to close two of the wards in the north building, and to have them thoroughly cleansed and purified. After this operation, and upon confining the number of patients in them to a reasonable limit, a decided improvement was manifested in the rapidity of recoveries, and convalescence. The position of a patient's bed in a ward, was observed to have an influence over his treatment. In the corners of the rooms, the patients got along more slowly than in the central parts, or near the doors or windows ;—and I frequently found that when a patient had been lying for several days, in a part of a ward most distant from the windows, and was not doing well, a removal of his bed right under a window would, in twenty-four hours, produce a decided change in the symptoms for the better.

Although this was the general course of treatment, it was frequently varied to suit the condition of the patient. Occasionally a case would present a degree of excitement, with hot and dry skin and thirst, which called for the spirit. Mindereri, ice in the mouth and to the head, and the mildest diet ; sometimes gastric irritation with nausea would demand a mild emetic, such as an infusion of euper. perfol. If the pain and heat in the head were marked, dry cups to the temples, or forehead, or blisters behind the ears, and application of ice, would generally be found sufficient. Pneumonic symptoms with cough frequently complicated the case ; when these occurred, Stoke's expectorant, with dry cups, or vesication of the chest, formed the principal addition to the other treatment.

Sometimes there would occur such a combination of general prostration and external heat and dryness, as to indicate a combined stimulant and febrifuge treatment ; such, for example, as the administration of carb. ammon ; or a half ounce of brandy, alternately every hour or two hours, with a half ounce of spirit. Minder. ; and so frequent and sudden were the changes, in many instances, from one condition to the other, an almost constant watching was necessary to withhold the one or the other, and again resume it. In fact, the varieties and shades of symptoms were almost infinite, and called for an endless variation in the means of relief. To enumerate them would take more time and space than could be reasonably asked. There were many cases, however, for which no other treatment was necessary than good diet and cold water. Cleanliness, pure air, and food, appeared all-sufficient for the removal of the disease, even in well-marked cases, not a particle of medicine being administered to them.

Local Complications.—A tendency to Erysipelas prevailed in some of the wards, during the whole of my attendance. No exact account has been rendered of the number of Typhus cases in which it occurred, but they probably amounted to about 20. It attacked the face and head in every instance. Its treatment did not vary from that required under ordinary circumstances, except so far as the Typhoid condition of the patient required. Cooling applications to the part affected, with internal stimulation, constituted the general course, with complete success in every instance but one, who died from the Typhus fever, his condition from the first having been desperate. One case will justify more detailed notice. It was that of a nurse, who contracted the fever from his patients; he recovered, and returned to duty; in two weeks he had a relapse, from which he recovered slowly, and soon after getting to duty again, had a second relapse, accompanied with Erysipelas in the face and head. The frequent attacks of the fever had so reduced him, that now, with the Erysipelatous complication, it seemed almost in vain to prescribe for him, especially, when in a few days the most serious symptom of all occurred, viz: great heat of head and evident congestion of the brain, attended with delirium and total unconsciousness. His eyes were entirely closed by the swelling of the integuments, the tongue was dry and black, the pulse frequent and feeble. A more hopeless combination of circumstances could hardly be imagined. Depletion, even local, from the head, was totally forbidden by the prostration; and stimulation by brandy, and carb. ammon., while contributing to sustain the general strength, seemed to add to the difficulty in the head. In this posture I resolved upon the exhibition of a remedy, which I am not aware has been before tried under similar circumstances. He was directed to have *five grains of Hydriodate of Potassa, every hour.* The effect of this (supposing the "post hoc" to be the "propter hoc") was magical, for in 24 hours there was a decided diminution of the cerebral congestion, and the patient rapidly recovered. The remembrance of the efficacy of this remedy as a deobstruent in certain conditions of the brain in children, especially in Hydrocephalus, both the true and simulated form, induced the hope of obtaining a similar usefulness from it in the case I have mentioned. Further observations, it is hoped, will test its efficacy in the same condition of the adult brain.

Dysentery was also a frequent complication of the fever, and a majority of the deaths which occurred in the latter part of my service, were produced by it. The force of the disorder fell so frequently upon the intestinal canal, as to assume an endemic character in the month of September; and the occurrence of this complication, accompanied as it generally was by purulent and bloody stools, was justly dreaded.

Some of the cases which, at the outset, threatened most seriously, yielded to treatment; but it would seem, judging from the post-mortem appearances, and the rapidity with which the patients sank, that the disorganization must, in many cases, have proceeded to an incurable degree before our attention was called to it by the patient. This was chiefly owing to the anomalous fact, that, even in some of the severest forms of the dysentery, there was little or no pain evinced.

The degree of disorganization of the mucous coat, in those cases which were post mortemed, was most extraordinary, surpassing, in many instances, anything before within my experience. In some cases not a trace of healthy mucous membrane was discernible in the large intestine, from the ilio-cœcal valve to the anus; but from every point blood and mucus or pus appeared to have been discharged, clearly demonstrating the utter incurability of the disease. Copious deposits of lymph-like matter were seen, forming *bas-relief* patches, and giving the idea, without close observation, of ulceration at the intermediate points. In one particularly-severe case, the entire mucous coat of the colon bore a resemblance to the rough bark of a tree, the elevations of the new deposits were so great and uneven. The color in this case was greenish.

When this complication was diagnozed sufficiently early, the administration of Tannin, and nit. argent., both by mouth and enemata, opiates, blisters and bland diet, frequently diminished the force of the disease, and sometimes with a successful issue; but the impossibility of direct applications to the ulcered surfaces, and the necessity of dependence on general treatment for a local disease, placed this disorder among the most dreaded.

When *Diarrhœa* formed the principal complication, the great sheet anchor was opium. This rarely failed to keep it in check, if administered to a sufficient extent. It was sometimes prescribed in conjunction with tannin, one to three grains of the latter, from three to twelve times a day, or with nitrate of silver, $\frac{1}{4}$ to $\frac{1}{2}$ a grain every 2, 4, or 6 hours, according to the severity of the symptom; but generally opium alone was found sufficient, while it seemed to have a happy effect, also, upon the febrile symptoms. Held in abeyance by the opium, the diarrhœa, as the general disease abated, and the strength improved, would gradually disappear.

One case of typhus was complicated with pregnancy of about four months. The patient aborted, but the uterus had not sufficient power to expel the secundines. No hæmorrhage ensuing, and the patient being too much prostrated to endure any direct treatment for their removal, they were left, and were retained five days, when they were spontaneously expelled, and the patient recovered in the ordinary time.

Delirium, which was a frequent complication, was usually controlled by cups or blisters to the temporal and mastoid regions, and by the exhibition of morphine or Dover's powder. Large doses of these sedatives were borne with entire impunity, and the most happy effects. In two cases, (young females,) the mind continued to be disturbed so long after recovery, as to give rise to apprehensions of confirmed insanity, but they happily recovered perfectly.

There were several other complications, such as jaundice, laryngitis, &c., but being only isolated cases, require no special notice.

The following tables, prepared from the books, exhibit the results of the treatment of typhus:—

Cases remaining June 30th - - - -	134
Admitted in July - - - - - . -	100
" August - - - - - -	126
" September - - - - -	107
Whole number cases of typhus in three months,	467

Of these there were discharged

	Cured	Relieved	Disorderly	Request	Died
In July, - - - - -	128	1	1	2	14
In August, - - - -	108			3	13
In September, - -	94			1	19
	330	1	1	6	46

Whole No. cases typhus discharged, - - - - -	384
" " " remaining, Oct. 1st. - - - -	83

Per centage of cures, - - - - - -	85.93
" " relief - - - - - -	2.10
" " deaths - - - - - -	11.97

In a considerable number of instances, however, in which the result was fatal, death was attributable not directly to typhus fever, but to some other disease, which made its onset in the enfeebled state of the patient during convalescence; so that the ratio of deaths from typhus alone would be materially less, amounting to perhaps 8 or 9 per cent.

Especially was this the case, as already stated, in September, when dysentery prevailed endemically, and was the immediate cause of death in many cases of typhus, but in which the fatal result is assigned to the credit of the latter disease, on the books. One of the deaths recorded as by typhus entered the Hospital with a *fifth attack of delirium tremens*, from which he recovered; but before being discharged, being subjected to the prevailing infection, he gradually sank, though with hardly sufficient character of typhus to be added to that list. There are probably very few persons capable of surviving five severe attacks of mania à potu.

The whole number of *Autopsies* in the three months (of typhus) was - - - - - - - - -		10
The head was the principal part affected in - -	1	
The chest - - - - - - - -	1	
The head and abdomen both - - - -	6	
Nothing special was found in - - - -	2	
		10

Peyer's plates were prominent in -	4
" " ulcerated in -	2
	6

In every case where the bowels were affected in either of the ways specified, the membranes of the brain were congested, or there was free serous effusion, or both.

In one case in which the plates of Peyer were prominent, they were enormously large—some of them, near the end of the ilium, exceeding 6 inches in length.

There were two other autopsies of persons who had been entered as cases of Feb. Remit., but the description of which leaves room to doubt whether they had not the typhus infection. In one, the membranes of the brain were congested, and there was bloody effusion. In the other, there was effusion in the cranium, and the liver was enlarged, congested and bronze.

Dropsy. Six cases of this disease were under treatment: three of them were the result of granulated kidney or albuminaria, one was ovarian, one was produced by disease of the liver, and in the other the cause was uncertain.

Of the albuminous cases, one, an elderly woman and a chronic case, died a few days after admission, being overwhelmed with the effusion; one was discharged cured, and the third was left under treatment, very much improved, and in a fair way to recover entirely. The treatment in these successful cases consisted in the administration of hydrogogues for the direct removal of the fluid, and of bi. chlor. of mercury for the original disease. The latter was given in doses from 1-16 to 1-4 grain ter in die, in solution in tincture of bark one drachm. Under a steady exhibition of this, the albuminous deposit of the urine disappeared entirely in one case, and was considerably diminished in the other. In the latter of these albuminous cases, and also in the hepatic case, the hydropic effusion was so great as to demand attention to its immediate diminution, for the relief of the respiration and circulation of the patients, before proceeding to the radical treatment. Desirous of avoiding the necessity of paracentesis if possible, it was determined to make a fair exhibition of *elaterium.* It was given in both cases, and with the most happy results. The third of a grain in the hepatic case produced from thirty to forty stools, reducing the size of the abdomen in one night one half, and, according to the patient's own account, without any irritation worth speaking of, except on one occasion when he took two doses, contrary to orders, a few hours in succession. This patient took in all nearly 7 grains, and was fairly enamored with the "little pills." The albuminous case took 13 pills of 1-4 grain each, with an equally happy result; and being very soon put on the use of the bi. chloride and tinc. bark, the anasarac was kept down, and he was left greatly improved.

Dysentery. Eighteen cases of this affection in its acute form were received; of these 2 came in in July, six in August, and ten in September, showing the greater prevalence of the disease in the latter part of my attendance, as has been before stated in reference to its influence over the mortality of the ship fever. One case deserves particular notice, in consequence of the exceedingly rapid and extensive disorganization of the mucous coat of the colon. The patient was an English army officer, said to be here in some official capacity, who was attacked at his hotel with bloody stools. After a sickness of a few days, during which he kept his bed but a very short time, he was removed to the Hospital, where he entered on Saturday evening, and died early on the following Monday morning, having been in about thirty-six hours only. As related by Dr. Washburn, the Resident Physician, the only symptom of moment, was discharges of bright red blood in great profusion, which were entirely uncontrollable. The autopsy, the only part of the case which came under my personal observation, presented the most extraordinary appearance. The disease was confined to the colon, the inner coat of which, in its whole extent, was of a brilliant red color, with profuse lymph-like exudation upon its surface. No other evidences of disease were found. This case presented a type of the then prevailing disorder, characterized by profound enteric disorganization with less than usual pain and fever. Of acute *diarrhœa* there were twenty-four cases admitted, ten of which were in each of the months of July and August, and only four in September, thus far displaying an inverse prevalence to that of dysentery. As the latter increased, the former decreased. In this respect, as well as in its progress and cadaveric appearances, there was evidently a specific cause producing this form of dysentery, its influence extending over other diseases also, and greatly modifying them.

The only other case worthy of special notice was one of gangrene of the lung, left side. The amount of gangrenous matter expectorated was not great, but seemed very decided in character; the disease was accompanied with much fever and pain. Blisters, preceded by local depletion, Stokes' expectorant, Dover's powder, and as a specific, drachm doses of a strong solution of chlorine constituted the principal treatment, under which and a moderately stimulating diet, recovery gradually progressed.

ART. VII.—*Observations on Amalgam and other Materials used as Filling for Defective Teeth, with cases.* By JOHN TRENOR, M. D., Dentist, *New York.*

MUCH having been published, of late, in the newspapers, on the subject of the combination of silver and quicksilver, for filling the cavities of decayed teeth; and its relative advantages and disadvantages, as compared with other materials heretofore employed, for the same purpose; and as the statements put forth have been exceedingly contradictory, the writer proposes to place before the public, such information on the subject, as he has been able to obtain, with the hope, that it may assist those who feel interested in the matter, in arriving at conclusions more definite and satisfactory.

For the purpose of being more clearly and distinctly understood, the articles investigated will be arranged separately and in succession, and their respective properties examined in the same order.

Gold Foil, as a filling for cavities in the human teeth, would seem to claim our consideration first, because, there is no evidence before the profession, that can, in the slightest degree, weaken the confidence which has long been reposed in it, over every other article, heretofore discovered, for this purpose. This confidence rests upon its superiority in purity, durability and color.

Of its purity,—although the exposed surface of a gold filling, will discolor in the mouth, where persons are inattentive to brushing them every day; and in an unhealthy state of the secretions, or a diseased state of the soft parts, will, sometimes, become of a very dark color, still no part of this discolored surface, which is always very superficial, is ever removed or taken up by the secretions; nor will it impart to the latter any metallic taste or odor; neither does any diminution or removal of this exposed surface ensue, no matter what length of time this gold filling may have been in the mouth; so that the proof is conclusive, that even where want of attention to cleanliness and disease combine, they can only affect gold fillings to the extent of discoloring their exposed surfaces; but it imparts neither taste nor odor to the secretions or the breath.

Of its durability—In this particular it may be considered altogether satisfactory. *Whenever the sound substance of the tooth is strong enough to admit of that degree of pressure which is requisite to bring the gold into a solid mass.* When this is admissible, and it should *always be done, if possible,* it will, even where exposed to constant friction and pressure of masticating, as on the grinding surface of a tooth, wear down only with the tooth itself.

Of its color—In this respect it is far from being all that could be desired; it is too deep a yellow, so that if the tooth be very thin, and more particularly, if the healthy color of the tooth be of a pearly white, or an approach to it, and this is not unfrequently met with, the deep yellow of the gold will sometime show through. Still, even in its color, it is as far superior to all other materials possessing any merit as fillings, as it is in its other qualities. Upon these points, it is believed that there does not exist any difference of opinion among educated and experienced professional men. But as to the material which should rank next to gold, there has arisen within a few years, and still prevails, a great diversity of sentiment among the same class of persons. Up to the period indicated, the profession was pretty unanimous in classing tin foil next to gold, as a filling for teeth; and after tin, though much beneath it, came cement of various kinds, fusible metal, gums sândric, mastic, &c., &c., all of the latter of but doubtful efficacy and short-lived reputation. Tin foil, however, has long been very much used, and is still employed to a considerable extent. It possesses this advantage over gold, that it does not require near so much pressure in the same bulk to bring all its particles into one uniform mass. Where, therefore a tooth has become so thin, from the extension of decay, that there would be a risk of its breaking, under the degree of pressure which gold foil would require, tin foil has been substituted. For the very reason, however, here given for its use, (its greater degree of softness,) it must obviously be, and is, less durable than gold. Wherever it is exposed to much friction, as on the grinding surface of a tooth, and particularly, if the cavity be large, and the surface of the filling consequently broad, it is too easily worn away in masticating. Its color, even if it did not change in the mouth, is an objection, as it has nothing of a yellow shade, nor any other which assimilates with that of the tooth. It much more readily, and under similar influences, much more deeply discolors on its exposed surface than gold, giving to the tooth into which it is put, particularly if the tooth be very thin, and the mass of filling consequently large, a dark bluish shade. This can be, in some cases, very much remedied, by brushing, unless the tooth be so thin as to admit of but slight pressure in putting in the filling, in which case, the brushing, necessary to keep the surface of the filling bright, will be likely to bring it out altogether. There is no reason for supposing, however, that the discolored portion of the exposed surface of tin foil filling is, any more than gold, soluble in the saliva, therefore cannot be imbibed into the system.

The next article, because of its more recent introduction to the notice of the profession, claiming to be considered as a filling for defective teeth, is a combination of silver and quicksilver, and which under the appellation of Amalgam, is now generally intended to be designated. This is the material which has given rise to so much diversity of professional opinion, already alluded to, and has called forth statements from practitioners, so entirely contradictory, as to render it very difficult if not impossible, for the public, to know what to believe, or what to disbelieve, on the subject. For this reason, it requires, and will receive a more extended and minute examination, than the articles already treated of seemed to call for.

The points, most important to the community to understand in this matter, are first, whether this amalgam possesses any advantages over articles already in use; and if so, secondly, whether, when used as a filling, it is harmless and safe. After discussing these points, the writer will proceed to examine the objections to which it is liable, as well as some of the more prominent ones, which have been, erroneously, charged upon it.

Of its advantages, the most prominent and peculiar one, is the tenacity with which it adheres to the surrounding surface of a cavity into which it is put. In this respect, it is exceedingly remarkable, and far surpasses that of any other material with which we are acquainted.—It will, as it were, fasten to a surface, harden, and adhere, where there is so little of a cavity, that neither gold foil, nor tin, nor anything else, can be made to remain, at all. There is no filling that can be put in, with the same certainty of its remaining, and this too, even when carelessly done. Indeed, its superiority in this particular, can neither be denied, nor doubted, by any one practically acquainted with it. This, however, is not its only superiority, nor, in the estimation of, at least the patients, its chief one; for the fact, that it requires so little pressure to fill a cavity as scarcely to indicate that the operation is progressing, enhances greatly its value, and extends, widely, the circle of its usefulness, by rendering it applicable to a large class of cases of very thin teeth, which, before the employment of this composition, were altogether useless, and were, very generally, extracted. These two considerations, make it particularly applicable, and exceedingly serviceable, as a filling for children's first teeth. To prevent these little patients from suffering, and preserve their teeth until they loosen, from the advance of the second set, is all that is desired; and with this substance it can be done, without subjecting them to the annoyance of tedious and painful operations. But, when, to these considerations, is added the fact, that, when properly prepared, it gets harder than gold, put in in the best possible manner, its value, as an auxiliary in the practice of dentistry, can hardly be overrated.

Of its safety.—As much pains have been taken to create a belief that the amalgam is poisonous, and, therefore, dangerous to have in the mouth, from which it enters into the system, by being dissolved in the saliva, or otherwise, through the channel of the absorbents; and infinite industry used to spread this belief before the public, it is obviously required, that in this particular, it should be very fully investigated. As preliminary to this inquiry, and a very important point in the examination, it must be borne in mind, that this amalgam has been used, as a filling, for about twelve years. At first, its use was somewhat circumscribed; but after a while, it rapidly increased, until now it probably amounts to as many cavities filled with it, as of all other materials put together. It is true, that a very large number of these fillings are very badly done; but, for the puspose now under consideration, this is a matter of no moment whatever. It is to the fact only, to which it is necessary now to advert, because it shows, clearly enough, that there can be no deficiency of evidence in the case, no matter on which side it preponderates. That it is a fact, the profession, both for and against its use, as well as a large portion of the public who have had it put in their teeth, can bear ample testimony.

The first cases which fell under the writer's notice, were the cause of so much irritation to the patients, as to render it necessary to remove the fillings; but this was owing to the careless and improper manner in which the operations had been performed, and in which, had gold or tin foil been used, would have required, in like manner, to have been removed. Cases of this character continued, every now and then, to present themselves; but, during the same period, very many were met with, and which were gradually, but constantly, increasing, in which no inconvenience whatever was experienced by the patients; and in some instances, as already stated, and those not a few, in which teeth were made serviceable, that without this filling would have been altogether useless, the teeth being too thin to bear without breaking, the pressure necessary to retain in their cavities any other serviceable material. Shortly after this amalgam was brought to the notice of the public, a very strong outcry was raised against it, by many prominent members of the professsion, here and elsewhere, asserting, among other objections to its use, that it was injurious, and even poisonous, to the system. Although the writer of this had never met with a case in which there was the slightest ground for a suspicion of this kind, still the positive assertions to the contrary then made by such professional authority as has since been so conspicuous in reiterating, through the newspapers, the same objections, induced a hesitancy, and a consequent delay, in the use of the article, which otherwise would not have occurred. It was in this state of things that such cases as the following came under the care of the writer, which naturally gave rise to doubts, as to the correctness of the observations and assertions put forth against the use of this amalgam, and which assertions, further experience has amply shown to have been entirely erroneous. These cases are selected, because, independent of their bearing upon the point under examination, they also illustrate others of equal practical importance.

Was consulted by Mrs. C—— for relief from very severe pain in the gums of the right side, more particularly the upper ones, from which it extended, frequently, over the whole side of the face and head, being, at times, exceedingly intense. She had been in delicate health for the last year, and it was within that period that her teeth, for it was to them that she had attributed her sufferings, had commenced to trouble her. She was of a rather delicate nervous temperament, but otherwise, had generally enjoyed good health until after the birth of her first child.—Since then, and particularly after the death of this child, her health has been feeble, suffering often and severely from nervous sensitiveness and great prostration of strength. Her teeth, as she stated, giving her more or less uneasiness, and sometimes, intense suffering. Her teeth are very defective, particularly the back ones, almost all of which have been filled many years ago. Of these, the first and second superior molar teeth, on the right side, she was told, would not bear the pressure of gold or tin foil, and were, in consequence, filled with the amalgam of silver and quicksilver, nearly four years ago. From that period, until within a year, she used those teeth without inconvenience of any kind, although the first molar tooth, was a mere shell, the filling extending from the enamel of the grinding surface some distance up the root, and above the gum, the vessels within the internal cavity of the tooth, having been dead a long time before this last filling was put in. It is only since her general health has been enfeebled that she has also been a sufferer from what she considered to be her teeth. Immediately previous to consulting me, she had applied to a professional gentleman, who assured her that the cause of all her sufferings was the material with which those two teeth were filled, and that she could not be cured until those fillings were removed. She informed him that the fillings had been in for three years and better, during which time she had constantly masticated upon the teeth, without even experiencing any inconvenience, and she was unwilling, therefore, to have them touched. He alarmed her, however, so much, by a detail of the distressing consequences of having such fillings in her mouth, that she finally consented to his removing this amalgam. But, in doing it, he caused her such intense suffering, that she determined not again to return to him. It was at this stage of matters that she called on the writer. She complained exceedingly of the pain she experienced about the teeth from which the fillings had been taken out, more particularly at night, though she was, at no time, entirely free from it. The whole of the gum on the right upper side, from the eyetooth back, was very much inflamed, as well as the under gum of the same side, though in a much less degree. The feeble state of her general health, together with the sensitive state of her nervous system, were obviously, the predisposing cause of the unhealthy state of her gums; and the changes in the weather, indigestion or other derangement of the stomach, the exciting causes of their present unhealthy appearance and of her sufferings. It was in this unfavorable state of things, that her previous professional adviser determined, unfortunately, to remove the fillings. Whenever, as in this instance, there is inflammation in the parts, exterior to the teeth, any pressure upon the teeth increases the suffering, even when the inflammation is but moderate; but if the inflammation is severe, the patient cannot bear to touch the teeth, even with the tongue; and complains also, of the teeth being longer than the adjoining ones. This is owing to the swelling of the membrane connecting the teeth and sockets together, which causes the teeth to protrude in proportion to the swelling of this membrane; and although this be only the thickness of a piece of paper, they are nevertheless thus caused to come sooner, than the rest of the teeth, in contact with their opponents, by which they are forced down upon this inflamed and swelled membrane, which gives a great deal, sometimes, excessive pain. For these reasons, the pressure and violence done in removing the fillings, in this case, necessarily augmented her sufferings, as she described. The correct course would have been, supposing it proper to have removed the fillings, first to reduce the inflammation from the surrounding soft parts, and then the fillings could have been taken out, without pain to the patient, or risk of after sufferings. But the fact was, that the fillings, in this case, so far from having had any agency in producing the deranged state of the gums, had an opposite tendency, by preventing the accumulation of food in the cavities, and enabling the patient to keep the parts around the teeth clean. The indications in this case were, first, to reduce the inflammation ; secondly, to refill the cavities in the teeth, from which the fillings had been injudiciously and unnecessarily removed ; thirdly, by astringent applications to the gums, to harden them and render them less sensitive ; and fourthly, by a course of tonics, attention to exercise, and regularity of habits, and light nourishing diet, to invigorate, and give tone and strength, to the whole system. The two first were not long in accomplishing ; but the latter required much more time, and to aid which, a residence in the country during the summer was adopted. The inflammation and pain recurred after some time, but was now located in the opposite side of the mouth, where no amalgam fillings had ever been put in. By proper and prompt attention it was very soon removed.

Case of Mrs. C., aged 22, of very nervous temperament, but her general health is very good. Her teeth began to decay while she was quite young, some of which were then filled. She had suffered so much in these first operations, however, that she allowed many of her back teeth to decay, without having them attended to. Seven years ago she went to Paris, where she had fifteen cavities in her teeth filled with amalgam of silver and quicksilver, which she was induced to have done because she suffered so little inconvenience during the operations. In four or five of the teeth, the vessels in the internal cavities were dead, but not so in the others. For five years after those teeth were filled, she felt no inconvenience from them, except one, which sometimes gave her pain, but soon passed away. Two years ago her health became delicate, and she suffered very severely for a while from what appeared to be tic douloureux. After using a number of remedies, her physician finally cured her with quinine. Recently some of her teeth began to decay, and she again visited, for the first time since her teeth had been filled with amalgam, the professional gentleman referred to in the previous case, to whom she mentioned how much she had suffered within the last two years, as already stated. He at once pronounced it to be owing to the amalgam fillings she had in her teeth. She was then annoyed a good deal by a lower back tooth which had been thus filled seven years ago, and from which seemed to originate the pain she had experienced when under treatment for tic douloureux. The degree of pain she now felt would recur at intervals of two or three months, in or about this tooth (the second inferior molar tooth, left side, the first molar tooth having been lost years before), and in a day or two it would pass off, when she could masticate upon it as well as any of her others. In the spring and fall, however, it would be so severe as to oblige her to apply to her physician, who cured her with quinine. But her dentist assured her that her sufferings were caused by the poisonous effects of the amalgam, and that this tooth, in particular, it was too dangerous to keep in her mouth, and must be at once extracted, and insisted upon and did immediately perform the operation. As the tooth had been a very useful one for years, with the exception already stated, and as its loss rendered that side of her mouth almost useless for masticating upon, nothing would have induced her to part with it, but the alarm which his representations had occasioned. He added, that if she wished to be free from danger and suffering, she ought at once to have the other teeth extracted in which this amalgam had been put. This closed her professional visits to this gentleman, as her husband would not consent to her returning after such an operation and advice. The correct explanation of the cause of her sufferings was this:—As already mentioned, the vessels in the internal canals of several of her teeth were dead. In this state of a tooth, which is a very common one, the dead vessels, just without the point of the root or roots, keep the soft parts with which they are in contact, in a state of morbid sensitiveness, so that when the system becomes excited as from taking cold, derangement of stomach, etc., etc., etc., this morbidly-sensitive membrane is very apt to inflame, and if severe, causes most acute suffering, requiring, frequently, active general and local depletion to remove it. In the case of this patient, after the first attack she had, which continued a considerable time before it subsided, it recurred, but in a milder form, and had not her nervous system been so very sensitive, she would hardly have required medical treatment—it would have subsided of itself after a day or two's continuance. Such cases are exceedingly common. But in so irritable a nervous system, it caused such acute pain as to call for medical aid, and was removed by quinine, giving plausible indication of its being tic douloureux. Latterly she was seldom troubled with it except in the spring and fall—the time when, from the weather being most changeable, these complaints are most prevalent. It is hardly necessary to add, that the amalgam fillings had no agency whatever in producing the pain she had experienced. It was a consequence of the death of the vessels in the internal canal of the tooth; and the loss of the tooth, therefore, a useless sacrifice.

The first of these cases was one of phlegmonous inflammation, supervening upon an exceedingly-nervous temperament, which every medical man knows is totally different, both in character and appearance, from that state of the gums resulting from the peculiar action of mercury, and requires a different course of treatment. Here too, from not knowing the true nature of the derangement in the gums, an operation was performed which was altogether uncalled for; but which, even if it were required, should not have been done in the then state of the gums, because it necessarily increased the irritation of the parts already too much excited, and greatly aggravated the patient's sufferings. These cases, therefore, show, not only that uncalled-for operations, useless loss of teeth, and increased sufferings, were a consequence of a want of medical knowledge; but that, from the same cause, opinions altogether erroneous were formed, and statements altogether unfounded were promulgated. But a closer investigation will prove how entirely groundless is the assertion, that this amalgam can be taken into the system, or can act upon it in any manner whatever.

Certain *preparations* of mercury, it is well known, produce, under certain circumstances, very powerful effects upon the human frame; but in order to do so, it requires to undergo a change in its composition and character, which, in the form in which we find it in this amalgam, it never does or can undergo. It requires a degree of oxydation or a minuteness of division which renders it useless, and altogether impossible to employ for the purposes of a filling. The two characters are entirely inconsistent with each other. If the quicksilver in the mixture undergoes such a change as to allow of its mercurializing the system, it will not answer as an ingredient in the filling, and vice versa. In the combination it forms in this filling, and as long as it remains so combined, it cannot affect the system. In the amalgam, it is in combination with a large portion of silver. Now before the system can become subject to its mercurializing influence, it must first become uncombined from the silver, which is impossible because of its stronger affinity for that metal than for oxygen: and, secondly, must then recombine with such a quantity of oxygen as it cannot be made to unite with in the mouth. Add to this, that the exposed surface of the filling itself must also have lost its cohesion; to have become quite soft; and to have very perceptibly diminished in quantity. But when in the face of all these impossible, yet absolutely necessary changes, to make valid the objections under consideration, we find it after one or two or five or ten years of use in the mouth, still presenting the same appearance, solidity and quantity, as when first put in; and that there is not, nor ever has been, a single symptom of mercurial action, local or general, upon the system, the fallacy and folly of the objections urged against it are almost too glaring to be worthy of serious argument to refute. With equal propriety might it be urged against gold, that because when highly oxydized, it becomes a very powerful medicinal agent; therefore it should not be used as a filling for defective teeth. Such cases, too, as those which have been given, afford evidence enough that the error of those opposed to the use of this amalgam on the ground of its dangerous and poisonous effects upon the system, proceeds from a want of discrimination between diseases totally different in their cause, character, treatment and consequences. But the fact that this amalgam has been in use for about twelve years; and that, for some years past, wide-spread has been its use, and vastly is its use increasing in and about this city, and everywhere else in this country and abroad; and that numberless, it certainly may safely be said, thousands of these fillings have been put in teeth, where they are known to have remained for periods varying from one to eight and ten years; that there is no alteration or diminution on the exposed surface of such fillings where it is not necessarily worn down by chewing, and that not a single authenticated case has ever been produced by physician or dentist, of illness or injury resulting from its use, it seems impossible to desire more conclusive testimony that, as regards the health, nothing can be employed more entirely harmless. To test or examine the value of an important professional point upon the loose, hearsay evidence resorted to in the case of Mr. Ames, would be a degree of trifling with our readers and the public that the writer feels no disposition to indulge in.*

The next point to be considered is, as to its durability as a filling, and its efficiency and permanency in preventing the further progress of decay. All that can be said upon this head is, that it has not been in use long enough by those who know how to perform operations with skill and judgment, to justify a positive assertion about it; but there is good reason to believe, from observation and experience, that it is most satisfactory. Time, however, and time only, can solve this problem with certainty. The writer has used it himself in very many cases, and a much greater number have come under his observation, and are constantly recurring and rapidly increasing, in which this amalgam has been in teeth from one to seven and eight and ten years, in which the teeth present every indication of being as perfect as when the fillings were first put in.

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* Since these remarks were penned, the writer has been kindly permitted the perusal of a letter to the editor of this Journal from Dr. Bemis, the physician of Mr. Ames, from which it conclusively appears that he never dreamt of attributing his illness or his death to amalgam fillings, or to any operations whatever upon his teeth.

The strongest objections, and the only sound ones, to the use of this amalgam, and very serious ones they are, are its colour and the readiness with which its exposed surface discolors. In these particulars it is more open to censure than even tin foil, because when prepared it is more of a bluish color than tin ; and when the exposed surface discolors, which it does quite as readily as tin foil, the contrast between the tooth and filling is stronger, and therefore the appearance to the eye more objectionable. But it possesses this decided advantage over the tin, it adheres so tenaciously to the surface of the cavity of the tooth, and becomes so hard, that, even though the tooth be a mere shell, the necessary brushing, to keep the exposed surface of the filling bright, can be always applied without the risk of bringing out the filling, which, it has been shown, is not always the case when tin foil has been used. It is, however, a serious draw-back to it as a filling, that it does not assimilate at all in color with that of the teeth, and that it so readily discolors. The very dark appearance, however, which an immense number of the teeth present, in which this filling has been put, must not be charged upon the filling, but to the want of skill and knowledge in the operators. Indeed there is no operation performed upon the teeth in which greater deception can be practised than in filling with this amalgam. The tenacity with which it adheres to the surface of a cavity, and the certainty as well as length of time that it will remain there and harden, though no pains may have been taken either to remove the decay or to prepare the cavity for receiving the filling or in putting it in, all concur to render the public more open to imposition when this article is used, than when any other with which the profession is acquainted. It is astonishing what a length of time it will remain in a tooth, under all the above disadvantages, in their most objectionable form. This was one of the considerations which weighed most powerfully with the writer to induce him, in the first instance, to make trial of it. The interrogatory very naturally presented itself, that if, under such disadvantages, it succeeded so well, how much more might we not expect from it when the circumstances under which it was employed were reversed? and every day's experience tends but to realize those flattering expectations.

The other objections to the use of this amalgam, so obviously proceed from a want of correct observation and discrimination, as scarcely to call for refutation. A few remarks will suffice to show this. It has been asked in a manner implying that a correct answer could be given only in the affirmative. did not this filling cause the death of the internal vessels of the tooth? inflammation of the investing membrane of the roots? brittleness of the tooth, etc., etc.? It is only necessary to observe, that these may be the consequences of operations improperly done, but never of the material used for filling, the character of which has no influence whatever in the matter. The same effects are constantly met with when gold or tin foil has been employed, and also where no fillings have ever been put in. The cause of such results in *all* these instances, is the *extension of the decay in the tooth.* Even though a tooth be filled, if the operation be improperly done, the decay will continue to progress until it reaches the internal vessels of the tooth, and then the consequences above referred to will be very apt to ensue. Again; it has been said that the only advantage in using the amalgam was, that it enabled the operator to perform a number of operations with it, while he would be accomplishing one with gold or tin foil, seems almost incredible, when every one who has ever had an operation properly done, knows full well, that from two-thirds to three-quarters of the time consumed in it, is taken up in preparing the cavity for receiving the filling; and in many of the cases in which the amalgam would be most useful, the time required for preparing the cavity cannot be curtailed, but must necessarily be extended.

From the preceding facts and reasonings, it is hoped and believed that the correctness of the following deductions will be readily admitted. First, that gold foil, from its purity, durability and color, whenever it can be used, is the best material yet discovered as fillings for defective teeth. Secondly, that the amalgam, or combination of silver and quicksilver, unquestionably ranks next. That it surpasses gold or anything else in the tenacity with which it adheres to and remains in a cavity. Thirdly, that it requires far less pressure to fill with it than any other durable material. Fourthly, that it becomes quite as hard and is equally as durable as gold, and, as far as the time it has been in use will justify an opinion, that it is likely to prove quite as effectual in preventing the further progress of decay. Fifthly, that it is applicable to a large class of cases for which, before its discovery, little or nothing was or could be done. Sixthly, that as regards the health, it is as safe as gold or any other material. And seventhly, that in point of color and the readiness with which it discolors, it is very much inferior to gold.

Tin foil must be classed after amalgam, for although in color the tin has the advantage, as well as that when it discolors it is not so objectionable to the eye, still, in all other points, and there are several, it is very far inferior to the amalgam.

In conclusion, let it be borne in mind, that the foregoing remarks and cases are placed before the profession, not so much from a confidence in their intrinsic value, as with the hope that they will elicit further investigation and discussion, which, it will be readily admitted, are the main springs to improvement.

ART. VIII.—*The Properties and Effects of Amalgam examined.* By ELEAZAR PARMLY.

CHARLES A. LEE, M. D.—*Dear Sir,*—All subjects appertaining to the healing art, must of necessity be matter of interest to every member of the profession, and cannot, therefore, be out of place in the pages of a Journal devoted to the advancement of medicine and its collateral sciences. Although the operations of the Dentist are not always studied, nor perhaps understood, by those who are not practically engaged in them, yet they are either directly or remotely connected in innumerable instances with disorders implicating the system at large, and from so doing come under the observation of almost every practising physician in the country. The benefit of dental surgery, skilfully applied, needs no confirmation; but the hurtful results of injudicious treatment, both as affecting the soundness of the teeth, and their appendages, and as influencing the general health, would seem to demand the strictest scrutiny.

Fully impressed with the importance of these points, and having heard from Dr. Bemis that you felt a sufficient degree of interest to make inquiries of him in relation to Mr. Ames' case, which has such a strong bearing on the following subject, I now address you on topics involving the qualities and effects of mercurial paste, when employed as a stopping for decayed teeth; and adding such corroborative testimony of its destructive tendencies as will not only carry conviction, I trust, to your mind, but also to the minds of your readers, and all who may be interested in the inquiry.

As there are but few in the middle or higher walks of society in this country, who do not, sooner or later, require the services of the dentist, it will be a matter of importance to them, to learn from their medical advisers, what will affect the soundness of organs, so essential and important as the teeth, to the ordinary purposes of life, and so productive of pain and discomfort when maltreated, or in a disordered state, and by what means they are most likely to be benefitted when applying for relief.

It has been alleged that the reason why some dentists do not approve of amalgam pastes, is, that "they are not medically educated." The reverse is the fact—it is because they are well educated, and understand thoroughly its effects, that they repudiate amalgam, in all shapes, as a stopping for decayed teeth. It was from the tests that experience, and the thorough investigations of men most carefully educated, and those most highly distinguished for scientific attainments, both in the medical and dental profession, that I was at an early period strengthened and confirmed in my convictions of its total unfitness for the purposes for which it was used; and my subsequent acquaintance with its baneful effects, not only upon the teeth but upon the general health, has led me to the decided conclusion that it should never be used or countenanced in any case; in fact, I do not understand how any one, knowing its harsh, irritating, and destructive effects to the health, structure, and vitality of the teeth, can use or recommend it to be used. Its effects upon the general health can be easily imagined from its having the power of producing, in some constitutions, salivation, and of so vitiating the secretions of the mouth as to make them capable of changing the color of gold stoppings, and destroying the elasticity and texture of gold plates and springs, worn in the mouth for dental and other purposes.

In proof of the correctness of the above belief and assertions, I will adduce the testimony of those who stand high as medical practitioners, as well as the testimony of those who have been medically educated, and who are not surpassed in this or any other country in practical skill and scientific knowledge in the dental profession—men who have too high a sense of the justice due their patrons, to neglect any means of doing them good; and whose time and services are too highly estimated, to justify their devoting hours, and days, of intense labor, to accomplish what a few minutes would do, if amalgam is what its advocates represent it to be.* And unless the mere holding of certificates or diplomas, of medical honors, has the power of changing the qualities of mercury and silver, which the science of chemistry has not yet been able to do, amalgam will be the same in the hands of a Rush or a Wistar that it was in the hands of a Crawcour or Mallan.

I have seen as good stoppings from these last named persons as I ever have from those now using it in this city; some of whom not only denounced the Crawcours as swindlers and impostors, but contributed largely in money to assist in driving them from the country, after Dr. James R. Chilton, that able and accurate chemist, had discovered, by analysis, that the celebrated Royal Mineral Succedaneum was nothing more nor less than a mixture of quicksilver and silver.†

Of the hundreds of teeth that have been filled with amalgam, and subsequently come under my observation, I have not yet seen one that did not bear marks of reproach to the practitioner who performed the operation, and clearly demonstrate, that professional skill, professional knowledge, and common honesty, were wanting in the operator, to an equal degree that one or the other of these three qualities were wanting in the Crawcours, who mixed the ingredients as well, and used them quite as successfully.

In commencing corroborative testimony in this matter, I shall, (having obtained ample permission so to do,) introduce some remarks from the investigations of Prof. A. Westcott, M. D., an able physiologist and pertinent writer on dental pathology and practical dentistry.

"From the mercury of this compound (amalgam) when oxydized or corroded, as *it always is* by the fluids of the mouth,‡ there is formed a substance closely allied to *calomel;* indeed, judging from its effects, we might say it more clearly resembled corrosive sublimate, which is but another compound of mercury."

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* To show the time required to perform operations when this pernicious compound is used, I will let Mons. Mallan speak for himself. "I can fill a tooth in a few seconds, sir, without giving the least pain. I filled thirteen teeth yesterday for a young gentleman of this city, a solicitor in chancery—a very liberal young gentleman. We can put in this composition of ours in less than no time. I filled these thirteen teeth yesterday in less than five minutes." This operation of five minutes, for which this 'liberal young gentleman' was charged and paid *sixty-five dollars,* would have occupied one of our best practitioners in dental surgery, probably more hours than there were stoppings; hence the advantage gained in time and money by quackery and empiricism, to the prejudice of the public, and disgrace of the profession. You will, therefore, at once perceive, that if it were consistent with correct professional practice, with truth, and with honesty, to use amalgam, no dentist would forego the advantage to be derived from it; and although all might not have the *knack* of getting sixty-five dollars for every five minutes labor, yet they might with ease make ten times as much by filling teeth with amalgam, as they could do with gold, at the same prices.

† Besides affidavits and charges preferred against the Crawcours, in the hands of the police, for malpractice and imposture, in using mercurial paste for filling teeth, the following is one of the certificates published against them in this city, in a printed circular, signed 'H. Villers, M. D.'

"A lady in Belfast had her teeth filled with their "Royal Mineral Succedaneum," which is notoriously a poisonous amalgam of mercury. The next morning, while at breakfast, the filling came out, and was swallowed by her; being informed by her friends of the deleterious nature of the 'Succedaneum,' she in great alarm sent immediately for her physician, who assured her that had she not promptly been relieved from the effects of this dangerous preparation, her life would in all probability have fallen a sacrifice to the culpable ignorance of a quack."

‡ See Dr. Chilton's letter at the close of this article.

The above facts will give an easy solution to the phenomena described in the following letter from Dr. J. Stearns, dated

"Pompey, Dec. 15th, 1842.

Dear Sir,—Regarding as I do the profession of dentistry as a science which ought to be ranked among the honorable professions, I therefore feel it my duty for the public good, and the honor of your laudable profession, to expose the vile quackery that is being practised on the community in this section, by an itinerant dentist, to the great injury of many individuals, and the success of the practice of dentistry. I will here give a statement of a case which has fallen under my observation. Miss R. S. called me to visit her. I found her with febrile symptoms; her tongue, gums, and glands swollen; a free discharge of saliva, a fetid breath, etc. I asked her if she had ever been salivated. She said never. I was positive, however, that she was under the influence of mercury, and then found that two or three weeks before, she had had several teeth filled with "Royal Mineral Succedaneum"—the teeth were very loose. The next day I removed one of the teeth, found it perfectly dead, and the alveolar process affected, which I have since removed, including almost the entire socket of the tooth.

"I have since been called to a Mrs. W., who has since been severely salivated by the use of the same compound.

"Respectfully, yours,

"JEHIEL STEARNS."

"A. Westcott, M. D."

Although the effect of the application of amalgam is not always the same as described in the foregoing letter, yet this compound has uniformly the effect of vitiating the secretions of the mouth, more or less; but its influence in producing *salivation* in the ordinary sense of the word is regulated by the following circumstances.

1st. The susceptibility of the individual to the effects of mercury, it being well known that while some are not, others are, badly salivated by comparatively a trivial amount.

2d. The quantity of the cement used.

3d. The age and health of the subject.

Though the effect just noticed (the vitiating of the secretions of the mouth) is sufficient, independent of other considerations, to condemn its use, there are others of equal weight, equally susceptible of demonstration.

1st. It is uniformly and necessarily inefficient in arresting caries.

2d. It is in every case dangerous.

3d. It is never called for.

I. *Its inefficiency:* It being admitted that dental caries are chiefly if not wholly owing to the chemical action of the acrid fluids upon the calcerous portion of the tooth, the only object gained by *any* filling is the protection of the exposed bone from such attack. It follows, therefore, that any attempt failing to accomplish this must be futile. This is not attained by *amalgam fillings.* That this is the case, will appear from the following facts: 1st. When the plug is removed, it appears in all cases much more thoroughly oxydized on its posterior than its anterior surface. 2d. In all cases where the filling remains any considerable length of time, that part of the tooth behind it becomes soft, the earthy matter being absorbed ; to put this assertion to the test, institute the following experiments.

After preparing a quantity of the amalgam very carefully, fill with it a strong glass tube, making it as compact as possible ; having suffered it to congeal undisturbed, immerse it in a tincture of red sanders. In a short time you will find the colored fluid has penetrated entirely around it, absolutely hiding the cement from view. Again : Immerse a tooth containing a medium sized filling of the amalgam, in the same fluid, allow it to remain some time, break it open, and observe the result. If *further proof* of the shrinking nature of amalgam and its consequent inefficien y for stoppings were wanted, it will be evident when we consider its specific gravity.

II. *It is in every case dangerous:* In order to substantiate this position, if it can be shown that a single case of salivation has occurred from its use, the point is gained. This conclusion rests upon the fact that no man, however skilful, can judge *a priori* either of the natural or acquired susceptibility of an individual, in respect to the effect of mercury upon the system, and the consequent risk that is incurred in placing this amalgam in the mouth. But instead of simply *one* case, we have ample testimony to prove that salivation is a very common result ; and moreover, that the vitiation of the secretions of the mouth, is a universal one ; the culpableness, therefore, of this practice, stands out in bold relief.

Next, let us lay aside, for a moment, the evidence founded on an observation of the *result* of the *application*, and examine the *properties* of this paste, to see whether, by such examination, we should be led to anticipate what observation has shown to be true. To establish this, it is only necessary to show :

1st. That the mercury of the amalgam would, when so applied, become oxydized.

2d. That the amount of oxyde formed would, either as oxyde or as salts, by combination with the various acids with which it is liable to be brought in contact in the mouth or stomach, produce salivation.

1st. Under what circumstances is mercury oxydized?

"Mercury is oxydized by agitation in a bottle half filled with air, and is converted into a black powder."

Now it is clear, that any metal which would be thus affected by simple contact of air, would be far more liable to oxydization in the mouth. For example, tin and silver will retain a polish when exposed to air and moisture ; but either of them is very soon corroded in the mouth ; but in addition to this, the susceptibility of the mercury contained in the amalgam to oxydize, is enhanced by its union with silver as an amalgam, as the following testimony from Dr. Turner tends to prove.

"The tendency of metals to unite with oxygen is considerably augmented by being alloyed. This effect is particularly conspicuous when dense metals are liquified by combination with quicksilver. Lead and tin, for instance, when united with mercury, are soon oxydized by exposure to the atmosphere ; and even gold and silver combine with oxygen, when the amalgams of these metals are agitated with air! the oxydability of one metal in an alloy, appears, in some instances, to be increased in consequence of galvanic action. Thus Mr. Faraday observes, that an alloy of steel with one-hundredth of its weight of platinum, was dissolved with effervescence in diluted sulphuric acid, which was so weak that it scarcely acted on common steel; an effect which he ascribed to the steel in the alloy being rendered positive by the presence of the platinum."

If a similar galvanic action results from the union of silver and mercury in mineral paste, the mercury would of course bear the relation to the silver, as did the steel to the platinum, in the case cited by Mr. Faraday. These two metals, together with the fluids of the mouth, would constitute all the essentials to a galvanic pile. If we add to these considerations the fact, that while "the current formed by the contact of two metals, gives increased effect to the affinity of one of them for some element of the solution, the ability of the other metal to undergo the same change is proportionably diminished," we have at once a clear idea of the changes which occur, and the successive steps in the process. By the galvanic agency exerted between these two metals by the fluids of the mouth, the natural affinity of the amalgam for oxygen is so increased as to make the decomposition comparatively rapid. But the most important conclusion which may be drawn from these premises, is the obvious fact, that the mercury (the most oxydable metal) would undergo much the most important, if not the entire change. For "when plates of zinc and copper touch each other in dilute acid, the zinc oxydizes more, and the copper less rapidly than without the contact." On the same principle precisely, is the silver of this compound protected at the expense of the mercury. It follows hence, that while the presence of the silver greatly facilitates the oxydation of the mercury, the latter metal is principally acted upon, and the result must be a copious formation of a copious mercurial oxyde, corresponding to the amount shown by observation to be formed.

The only remaining question is as to whether the amount thus formed, is capable of affecting the system so as to produce salivation. Of this, after presenting the following facts and quotations from the "London Lancet" and the British & Foreign Medical Review, I will leave all to judge, who will lay aside prejudice.

"Very lately, a man who was taking sulphuric acid for epistaxis, was severely salivated by two grains of calomel, in a dose of cathartic pills. The acids naturally contained in the stomach were the muriatic and acetic, and the mercury contained in two grains of calomel, or a few grains of blue pill, would of course be sufficient to produce the most serious consequences, if changed into the bi-chloride, or corrosive sublimate."—*Dr. Snow.*

The following is the opinion of Mr. Streeter:

"The fact of the action of the blue pill being much more powerful at one time than another, might be accounted for by the conserve of roses, with which the mercury was triturated, being occasionally mixed with sulphuric acid, for the purpose of restoring its lost color. Hence, instead of the simple oxyd, the sulphate of mercury was producing its effects on the patient. He had no doubt, however, that some constitutions were susceptible of the influence of mercury in its slightest forms. He had seen severe salivation produced by the administration of nine grains of blue pill, although it had been given in only one grain doses *three times* a day, and its effects watched with the greatest care."

The following opinion of Dr. Law corroborates the above.

"We directed one grain of calomel to be mixed up with a sufficient quantity of the extract of gentian, to make a mass to be divided into twelve pills, one of which was to be taken every hour. We found, in some cases, salivation to be produced by twenty-four of these pills, or two grains of calomel, and seldom were forty-eight pills or four grains required to produce this effect. * * * * We exhibited the blue pill in the same way, and found the mouth to become sore from six grains. * * We have found one drachm in every night sufficient to produce salivation"

Nothing, therefore, can be more clear, than that a small quantity of mercury is capable of producing salivation—much less (as will presently appear), than is usually contained in a *single* cement filling. "I have one of these fillings in my possession which weighs sixty-three grains.' This amount of amalgam would be sufficient to produce, from the mercury it contains, thirty-seven grains of calomel, and about thirty-eight and one half grains of corrosive sublimate. On the supposition that the whole of this was administered as calomel in the way described above, it would be more than sufficient to salivate eighteen persons.

From the above facts and considerations we make the following conclusions.

1st. That any person wearing in the teeth any considerable quantity of cement is *liable* to salivation from the accumulation of the oxyd shown above to take place.

2d. That every person (having such fillings) is subject to so much of the *constant* effects as would accrue from all the oxyd formed on the outer surface of these fillings, and which would be easily carried into the stomach.

3d. The like persons whose saliva is generally more or less acid, would be subject to the constant impressions from the entire oxyd formed on the whole surface. In either of the last two cases, the effect would be sufficient to keep up an unhealthy action of the secretions of the mouth, if it did not amount to salivation.

4th. The constant oxydation and solution of the surfaces of these fillings, renders them less and less perfect in respect to preserving the tooth, by giving more free access to those fluids which are the chief sources of decay.

III. The third position we took in relation to this amalgam was, that *Its use was never called for.*

This position rests mainly on the first and second; although were either or both of them refuted, it could still be easily supported.

So much for the testimony of Professor Westcott in this matter, which of itself is sufficient to consign the amalgam to perdition. I will now proceed and furnish additional testimony, conveyed in facts, and the opinions of eminent medical practitioners and dentists; and as it is a common practice, with some gentlemen in the medical as well as other professions, wholly ignorant of the nature and results of amalgam, to give their names to dentists who make a practice of using it, recommending them to public favor; it is to be hoped that the following cases, coupled as they are with testimony from men of the highest character in the medical and dental professions; containing incontrovertible proofs of the evils which may follow the employment of such persons, (who are frequently applied to through the instrumentality of the testimonials above referred to,) will have a beneficial influence in causing such recommendation to be withheld in future, and also in warning the community at large, to beware of that artifice and dishonor which, for the sake of a few dollars, would sacrifice the health, comfort and happiness of their fellow beings.

The following case, recorded by J. H. Foster, M. D., Dentist, and confirmed by Joseph Wooster, M. D., Physician, both of this city, and both well known as distinguished men in their respective departments of practice, will show the effects of amalgam conclusively, in producing salivation and other aggravated evils.

"On the twentieth day of July, 1843, I was called to visit a lady who was suffering from a tooth filled with the mineral amalgam. For a week succeeding the operation the patient suffered the most acute agony, passing sleepless nights, and obtaining only occasional relief by the use of opiates. On examination, I found the periosteum of the inferior maxillary bone much inflamed, the adjacent soft parts tumefied, very hard and acutely sensitive to the touch, the interior of the mouth was in an equally-inflamed state, and the patient had been for several days, and still was, severely salivated. With some difficulty I succeeded in extracting the tooth—the second molaris.

"Dr. Wooster informed me that this lady had previously enjoyed good health, and that he had not administered any mercurial medicines.

"I could cite many other cases which have come under my observation, in which this article, called by as many assumed names as there are operators who use it, has been productive of serious injury; one such case, however, is sufficient to convince any one who may witness it, of what I have been compelled to believe and have asserted.

"JOSEPH H. FOSTER, M. D."

"I hereby certify, that the facts as stated by Dr. Foster, in relation to the above case, are correct; that I was the constant medical attendant of the lady referred to, and know her to have been a comparatively-strong and healthy person previous to this event; that I had no necessity for, and had not administered any mercurial medicine previous to the extraction of the tooth; that on my first visit after the operation of Mons. Mallan, I found her glandular system had been so affected as to cause active mercurial salivation. I continued my attendance upon her for four months afterwards, during the whole of which time she was unable to attend to her family duties. The swelling of the face could not be reduced by any remedies, and continued the cause of so much acute suffering, that a fever ensued, and very active treatment was resorted to at one period to prevent a threatened inflammation of the brain. Exfoliation of the interior maxillary bone I was constantly apprehensive of, until I became convinced that the case had assumed the form of osteo sarcoma. At the end of four months, when this lady left me to go to the south, her face had not resumed its proportions, nor could I perceive any approximation to a change, and her pain still continued.

"I have no doubt that all her sufferings are justly attributable to the mineral amalgam so much used in filling teeth, and which, I am convinced, is not only an improper, but a highly dangerous compound.

"JOSEPH WOOSTER, M. D."

In the following letter, which I received from Dr. Davis, well known to the medical profession as a gentleman of high character and scientific attainments, he has very accurately described in his own case that which happens to almost every one who has teeth filled with amalgam under similar circumstances.

"Dr. Parmly,—Dear Sir,—Agreeably to your request, I send you the following account of the effects of an amalgam, or mineral paste, or lithodeon, as it has been variously termed, on one of my own teeth. Some four years ago I called on a dentist to fill two molar teeth in the upper jaw, one on either side. The state of disease and the size of the cavity in each was very similar. The first was filled with gold foil in the usual manner, as I expected both would be. But before I was aware of the fact, the second tooth was filled with amalgam. Not wishing to find fault, I suffered it to remain, and treated it subsequently in every respect like the other tooth. In a few weeks the tooth filled with amalgam began to be slightly tender, the gum around it slightly swollen, and disposed to bleed from very slight causes. These symptoms slowly increased, and at the end of three or four months the periosteum around the roots of the tooth became inflamed, and ultimately ulcerated, producing a disagreeable abscess in the gum. In the meantime the original cavity in the tooth continued to enlarge, and consequently before the end of one year the amalgam came out, having become much oxydized and changed to a bluish-black color. The body of the tooth now rapidly crumbled off, but the disease at the roots continued to increase, until, fearing an extension of the disease to the alveolar process of the jaw, I caused them to be removed by extraction; the surface of the diseased roots was very rough, produced by partial absorption. Subsequently the body of the other tooth (the one filled with gold) has broken away, but its roots still remain in the jaw, having never caused either pain or tenderness. Several other cases, equally well marked, have come under my observation; but as no notes were made of them at the time, I cannot now give them in detail. Indeed, I have never examined a tooth which had been filled with amalgam for any considerable length of time, in which the amalgam did not give unequivocal signs of oxydation.

Yours, with great respect,

N. S. DAVIS, late of Binghamton."

"11 University Place, N. York, Sept. 24th, 1847."

Doctor I. T. Curtis, of this city, has furnished me with the following interesting case, wherein the effects of this nostrum were distressingly manifested.

"Some years ago, I extracted twenty-one teeth and roots from the mouth of a young lady, all of which had been entirely ruined by the application of five or six pluggings of the famous "Royal Mineral Succedaneum," for the arrest of decay in its incipient stage. The use of the compound in this case, had made a complete wreck not only of the teeth, but of the parts adjacent; the mouth became fetid, the alveolar process completely destroyed, and the gums reduced to a spongy texture, bleeding profusely upon the least pressure. Originally this lady possessed an *unusually* fine set of teeth, but shortly after the application of the 'Succedaneum,' unequivocal signs of mercury having been introduced into the system made their appearance, and the mouth was gradually reduced to the above miserable condition, rendering it absolutely necessary to have the entire set of teeth extracted, before the fearful ravages caused by this poison could be arrested.

"I. T. CURTIS, M. D."

"I am also acquainted with a case wherein the application of amalgam to one tooth, not only destroyed the tooth so operated on, but brought on a constitutional mercurial fever, accompanied with other symptoms of the presence of mercury; and to such an extent was the constitution of the patient in this case reduced, solely, in my opinion, (and that of other medical gentlemen cognizant of the circumstances,) through the instrumentality of this poison, that a dangerous illness was superinduced. "I. T. C."

"New-York, Oct., 1847."

There are Amalgam Dentists in this city who will, for a few dollars, show any one how to make paste and apply it to the teeth, which any one can do with a few minutes' instruction. When so *perfected*, some of them assume the title of *Doctor*, and with certificates from their renowned teachers, a physician or two, and a minister, travel about the country as dentists from New-York. The effects of the practice, (from a visit to a village near the city, of one of these Lithodeon makers, living in New-York,) are well described in a letter received from a clergyman, residing in the place where this occurred, and who speaks of several cases that came to his knowledge. I will transcribe two of them, and although not required to omit names, (all of which are well known here,) I do so to spare the feelings of persons connected with them, who might prefer not to have them mentioned.

"A few days after, I met Doctor ———, who told me that he had been getting his teeth filled with a paste the dentist used, and that he was afraid there was something wrong about it, as he had been sick ever since. I asked him if it was an amalgam of mercury that the dentist used. He said he could not tell; he had never had occasion for a dentist's services until then, and supposed it was all right, until he began to suffer severely. I replied, that I had been warned while a resident in ———, by my physician, against ever suffering any amalgam to be put into my teeth. We parted. In going home, he told the dentist what I had said, who, in consequence, called upon me. Dr. —— appeared to be a courteous, and well-informed man, and tried hard to convince me that the preparation *he* used was perfectly harmless. * * I remember putting the question to him, whether there was any mercury in the paste? He confessed there was, but perfectly harmless in the way *he* used it. * * The result you will have anticipated. Dr. ——, who was a sufferer from the first, was under the necessity of having the teeth extracted, glad to get off with this loss. He always thought his health to have been for a time impaired in consequence."

Another case related by the same gentleman:—"Miss —— had several teeth filled by this same dentist. Her head and eyes were affected almost immediately after the dentist left her. Fever ensued—and she continued to suffer from February or March until June following when she died. It was the expressed opinion of Dr. ——, to me, at various times, and also to the family, from his own experience, and that of others, who had suffered from the effects of the amalgam, that the sickness and death of Miss —— was occasioned solely by the poisonous material used in this paste, which had been taken up into the system."

The following letter from J. W. Crane, M. D., is not only valuable in itself, coming as it does from a person of extensive and successful practice, and long experience as a dentist, but from its furnishing the testimony of a gentleman of high reputation as a medical man, and as a chemist and mineralogist.

"New-York, Oct. 1st, 1847.

"Dr. Parmly,—Dear Sir,—I received a letter from Dr. Frey, some months since, concerning the question which you have so long and so ably defended; and without asking his permission, I take the liberty to place it at your disposal. * * Dr. F. is a gentleman of extraordinary educational attainments in chemistry and mineralogy, and is now practically investigating those sciences in the West. Dr. F. is not a dentist, and I therefore consider the document much more valuable, and free from prejudice.

"I have often expressed my opinion in private, and occasionally in public, *against* the use of mercurial cement *in all cases*, and the long controversy on this subject has not caused any change in my opinion. I understand that some of the advocates of cement, think that a medical education would favor the use of this *dental curse.* If any now exist, holding this opinion, let them read their books backwards, until they arrive at the place where they started, for ignorance is preferable to learning badly used. "Respectfully, yours,

"J, W. CRANE, M. D.,

"Dr. E. Parmly." 11, Le Roy Place."

[Copy of Dr. Frey's letter above mentioned.]

"To J. W. Crane, M. D.,—Dear Sir,—I have known a case in which a large cavity in a molar tooth in the upper jaw was filled with cement containing mercury, and in the course of two months the lady lost not only the tooth which was filled, but the tooth on each side, which were quite free from decay, the mischief evidently arising from mercurial disease of the gums, induced by the presence of mercury used in the cement. "Respectfully, yours,

"J. M. FREY, M. D."

The following case of diseased antrum, in which I obtained the examination and advice of one of our most eminent surgeons, was undoubtedly occasioned from the effects of mercurial paste.

A lady called on me, in great distress, from disease in the first right molar tooth of the upper jaw. On examining the mouth, I found the gum around the aforesaid tooth to be of a dark hue, and quite destitute of healthy circulation. The tooth itself was also dark and necrose, and evidently demanding immediate extraction. Before removing the tooth, I passed a probe along the side of the tooth, completely into the cavity of the antrum maxillare. When the tooth was extracted, profuse hemorrhage ensued, and considerable portions of ash-colored bone adhered slightly to the fangs. Six or eight other pieces of bone, about the size of small peas, were afterwards removed from the cavity of the sinus. The cavity was filled with blood, which made its escape through the nostrils, down the throat and out of the mouth of the patient. The lady informed me that she had often been nearly strangled at night by purulent matter, which made its escape from the antrum, through the nostrils into the fauces, larynx, aad trachea. I found so large an opening into the antrum, after removing the diseased tooth and decomposed bone, that I could easily pass my little finger quite up to the sub-orbital parietes of the cavity. This tooth had been filled with a large plug of mercury and silver, which was unquestionably the cause of the deplorable effects above described.

I could furnish many cases of great interest from other distinguished professional gentlemen, but will conclude the testimony under this head, with a statement of the deplorable effects of *paste*, in the case of the lamented N. P. Ames, Esq., which I subjoin in that gentleman's own language, and which I give in preference to abundant proofs of the same purport, with which I have been favored from other authentic sources.

As a report, however, has gone widely abroad, and received great weight and credence, that Dr. Bemis, of Cabotville, (Mass.) was Mr. Ames' attending physician, and that he had expressed opinions adverse to the facts advanced by the deceased, I will take leave to say, that Dr. Bemis was not the attending physician of Mr. Ames at the time his health is alleged to have first suffered from the mercury used in stopping his teeth, nor was he in attendance at the time of Mr. Ames' death. The doctor had no intercourse with the latter at the one period or at the other, and knowing nothing of the circumstances, he could not contravene the statements made by Mr. Ames himself, which I had caused to be published, and which, until he read them in print, was not aware that Mr. Ames had made any such communication, having no recollection of ever hearing from him an account of his illness in Paris, or what he supposed to be the cause of it, or that he had any teeth filled with the material with which they were filled.

The report made by the person employed by some *amalgam dentists* of this city, to call on Dr. Bemis, was entirely opposed to the facts, as delivered to me by that physician in June last; and being desirous of knowing his views more fully, I made Dr. B. a second visit in September: having then a longer conversation with him, he spoke of the statement that had been published as coming from him, and assured me that the publication of it was in no manner authorized, nor was any other from him in reference to the case, (except a letter to Dr. Lee), that all he said to the person who came from New-York, occurred in a general conversation, not knowing or supposing that any use was to be made of it; and furthermore, said his object in writing to Dr. Lee, (supposing the letter would be published), was to put a stop to all further inquiries of him, with which he had been much annoyed.

Mr. Ames was absent one year from his home; on his return he was suffering from paralysis, occasioned, as he and all his friends firmly believed, by the agency of mercury, with a preparation of which his teeth had been filled. Dr. Bemis informed me that he knew nothing of the case, that would either contradict or confirm Mr. Ames's own assertions; and not having been present at the time of his contracting his illness, and knowing nothing of the cause of it; that he had not seen him at all for six or eight months previous to his death; and that the only statement he had made in relation to this matter, was contained in the letter to Dr. Lee above mentioned, of which he handed me a copy, to prove, as he said, that he had favored neither the one side nor the other of those who took part in the Dental controversy. To show Dr. Bemis's neutrality as to the points in question, I here annex his letter, *verbatim.* I shall also introduce a most interesting letter written by Dr. Booth, an eminent physician, which will be read with interest, in connection with that of Dr. Bemis:

"Cabotville, Mass., June 23, 1847.

"Dr. Charles A. Lee, New-York:

"Dear Sir:—Your letter, (accompanying Journal), requesting the details in the case of the late N. P. Ames, Esq,, of this village, were duly received.

"I have had numerous similar inquiries within the last two or three weeks, from members of our profession, and also from dentists; and for reasons, have not answered them.

"Mr. Ames's case was an obscure one—of long standing; and during the last eighteen months of his life, he was not under any active medical treatment, except, perhaps, the last two or three months he was under hydropathic treatment at Brattleboro', Vermont.

"There was no autopsical examination; and, in my opinion, no definite facts can be elucidated in his case, having a *decided bearing* upon the subject of mercurial amalgam. Moreover, I am aware of the repugnance his relatives have to the publicity of his name and case in all the papers of the day.

"Yours, with much respect,
"DAVID BEMIS."

Letter from Dr. Booth, of Springfield, to Dr. Crane, of this city, by whom it was obligingly furnished:

"October 16, 1847.

"Dr. Crane—My Dear Sir: In answer to some inquiries of yours, with regard to the case of the late Mr. Ames, and also my opinion as to the propriety of using amalgam, I subjoin the following remarks.

"Having resided for several years past in Springfield, and having known Mr. A. both before and after his trip to Europe, I can truly say, that he was a man "formed in nature's finest mould." To a superior mind, well trained by judicious culture, was joined in him a character above reproach. An urbanity of manner, such as falls to the lot of few, was his also. But to our subject. While in London, he had some teeth filled with this mercurial paste, and to use an expression of his, "never saw a well day after." What was the cause? Mr. A. supposed that he had swallowed some of this substance. He was a man not likely to be mistaken upon such a point, nor to form an opinion without good and sufficient reason. Then the question arises, could the passing of this substance in small quantities into the stomach, affect the system injuriously? or in other words, could the specific effects of mercury be produced? Undoubtedly they might, although many persons in similar circumstances would escape all harm. The mere fact of many persons suffering no bad effects from this substance, does not prove its harmlessness. By no means. Negative testimony is worth little, compared with positive. The susceptibility of various constitutions to the various preparations of mercury, is as varied almost as the human countenance. Peculiar idiosyncrasies, to which you have so happily alluded, must modify its action. But Mr. A. was exposed to wet and damp weather, soon after his teeth were filled, and what was the result? Just what we are led to expect, in cases of persons taking cold while under the specific influence of mercury. In such cases, the osseous system of the lower extremities particularly, becomes implicated, producing a condition termed mercurial rheumatism, or mercurial palsy. The patient loses gradually the use of his limbs for the purpose of locomotion, and although he may live several years, yet is in such a state, that death might almost be considered a blessing. A case which occurred under my own observation, and with the circumstances of which I was perfectly familiar, is in point. A young man, while under a mercurial course, went in bathing, and contracted cold. From that day he gradually lost the use of his lower limbs, and although he afterwards lived more than ten years, was never able to do any business for the latter half of this time, dragging out a life rendered a burden to himself and friends. My dear sir, I must say, I consider these two cases very similar, not only in outward appearance, but also in the internal changes, produced, as I think, by the same influence. You will perceive the conclusion to which I have come is this, that while Mr. A. was under the poisonous influence of mercury, he took cold; the result was such as we should be led to expect from similar causes, acting in like manner upon the human system. For seven long years he was a sufferer, till at last his worn and broken constitution found a resting place amid its kindred dust. Here I leave all; and while I ask your indulgence for this hasty manner in which I have treated the subject, believe me,

"Yours, truly,

"ALFRED BOOTH."

To return. I will now make such extracts from Mr. Ames's letters, as will enable medical men to judge whether the effects produced and described by him, are, or are not unequivocal proofs of the presence of mercury in the system; and also whether mercury, when so absorbed, does not occasionally prove a source of most calamitous disease.

"I have been very much troubled with my teeth, and for a few days the same cause has affected my whole system. About the 1st of July I placed myself in the hands of a dentist in London, and had several teeth filled with a new-fashioned mineral paste, that was highly recommended. Several days after, I found a piece of the paste loose in my mouth, and on examination found it to be nearly all quicksilver. I felt no immediate bad effects, but as the wet and cold weather came on, which commenced in August, I was much affected by the cold, and on my arrival here, being quite out of health, was told by my physician that I was thoroughly salivated,* and without any doubt from the ce-

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* The public has already been informed by an intimate friend of Mr. Ames, who crossed the Atlantic with him, and saw much of him while in England, that he was in very fine health when they arrived there; and I have, within the past week, received the testimony of an eminent professional gentleman, late a practitioner in Europe, but now in this country, who affirms, that when Mr. Ames's physician in Paris told him that he was "thoroughly salivated," Mr. Ames, with much astonishment, replied, "I have not taken a dose of medicine of any kind in six years."

Dr. Bartlett, of Massachusetts, who was in Paris, and acquainted with Mr. Ames ment in my teeth. He said he would not pronounce on the case so quick, if I were the first that had come to his knowledge from the same cause, but that I was not. My lower teeth have nearly all become loose, and there is much probability that I shall lose them all before long. I have suffered severely night and day, although able most of the time to travel. I am now in good American hands, and recovering rapidly. What leads me more fully to the belief, that the cause of my situation is mercury, and proceeding from my teeth, is, that one-fourth of what was put into one tooth, and which I took loose from my mouth, was sufficient to quick (whiten) a penny completely. I had then probably swallowed the remainder from that tooth, and from several others." October 10, 1840.

Shortly after writing the above, Mr. Ames being seated in the open air for some time, witnessing an imposing public ceremony, was struck with paralysis, so as to be obliged to be carried home. Feeling anxious, a few months afterwards, to ascertain whether his ailment had implicated his lungs, he had an examination made, which he describes in a letter, dated Feb. 21, 1841.

"Feeling an increased anxiety on my own account, as well as on account of my friends, I concluded to advise with the best physician, conjointly with the one I had been employing. I found *that best* to be Dr. Mott, formerly of New-York, now residing here. He met the other physician, and they both assured me that my lungs were sound, but that I had set out too soon, and in the most unfavorable weather, I feel quite inclined to listen to the particular advice of my physicians with regard to my future course; more especially, for a few weeks longer, they have advised that I should not overdo in the least, not on account of my lungs, but on account of my *glands*, which have all been inflamed and swollen."

As my object, in this case, is solely to show the hurtful effects of this deleterious poison upon the system, further details on this interesting case would be out of place; and I will merely add, that towards the close of the life of this beloved and valuable man, his paralysis became more confirmed, until he eventually wholly lost the use of his lower limbs; and after more than six years of intense suffering, he at length perished—a victim, undoubtedly, to the baneful effects of the mineral employed in the operations to which his teeth had been subjected—mourned over by friends—respected and beloved by all—a loss to science

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at the time of his suffering, without knowing that he had teeth filled with mercury and silver, (of the effects of which Mr. Ames himself probably at that time could not have been aware,) pronounced his illness to be of mercurial origin, as his letter to me, part of which I transcribe, will fully testify.

"New Bedford, Oct. 24, 1847.

"Dear Sir,—I saw much of Mr. Ames while in Paris, but as he was not under my professional care, I took no notes of his case. His disease at that time seemed chiefly confined to the glandular system, and I always suspected it to be of mercurial origin. He dated the origin of his sufferings from the time he was in London, but he never said anything to me about having had his teeth filled with amalgam. It was during the first two or three weeks of his residence in Paris that I knew him; he was better at the time I left, but the period of his greatest sufferings was after that. I have never seen him since except for a few moments one day in Springfield, when I was too much shocked by his hopeless condition, to wish to converse with him upon the subject of his health.

"Very respectfully yours, LYMAN BARTLETT."

and to the nation, whose servant he was, and in whose special mission he was officially engaged when this calamity befel him.

In order to learn the views of others in the profession, I addressed a short circular to the dentists who have gained the highest rank in other cities, for their practical skill and scientific knowledge, most of whom have been medically educated, and are graduates in medicine, I received from them the following answers .

"PHILADELPHIA, Walnut-street, June 8, 1847.

"MY DEAR SIR,—I cheerfully comply with your request, "in as few words as possible," by stating my opinion, that amalgams are *entirely unfit* for stopping or filling teeth. But I am unable to decide whether it be the lack of honesty, or want of knowledge and liberality, which induces a preference with some persons, for such base compositions over gold.

"Very truly and respectfully yours, etc.

"E. B. GARDETTE."

"MONTREAL, June, 1847.

"MY DEAR DOCTOR,—In answer to your note of the 17th I will state briefly, that my experience in the use of amalgam for filling teeth, is such as to warrant me in saying, that it is totally unfit for the purpose under any circumstances, saying nothing of the local or constitutional injuries that this filling is sure to inflict to a greater or less degree ; the shrinking of it while hardening is sufficient to render it useless as a material for plugging teeth. This shrinking being in proportion to the size of the filling, in very small cavities, such as the veriest ninny in the profession ought to fill successfully with gold, its effects upon the structure of the teeth are less observable ; but in large cavities it freely admits the fluids of the mouth between it and the walls of the cavity, its surface becomes oxydized, and the whole tooth blackened in consequence.* * * * * Though these are the least of the objections that may be brought against this material, they are alone sufficient in my opinion to prohibit its use.

"I am surprised that a set of men, or even one man, can be found, who dare insult an enlightened public by advocating so dangerous a practice ; and I cannot help feeling, that he who uses amalgam, even with the approbation of the patient, commits an act in the highest sense dishonest and disgraceful.

"I am, my dear sir, yours, sincerely and truly,

"W. H. ELLIOT."

"Dr. E. PARMLY, Bond-street, New-York."

"BOSTON, June 11, 1847.

"All amalgams, under whatever name, that I have known to be employed for filling teeth, I hold to be injurious in their effects; and though in some instances they remain for a long time, and appear to be harmless, they do, *in all such*, fall short of gold in effecting the preservation of the teeth.

"The operator, who is ignorant at this day of the mischief he may do by using amalgams, is not worthy of being trusted ; and the accomplished dentist who has it in his power to do well, and who must and does know as well as you or I do, that gold is in every respect the superior article, and will still use the mercurial compounds instead of it, does but barter his conscience to cheat his fellow beings out of their teeth, perhaps of their health, and possibly of their life.

"Yours, very truly, J. F. FLAGG."

"Dr. E. Parmly."

"Boston, June 10, 1847.

"Dear Sir,—We answer with pleasure the questions contained in your note of the 7th. First, we have never used amalgams in any form, knowing them to be injurious to the teeth under *any circumstance.* Secondly, we consider it decidedly dishonest for any dentist to use a mercurial composition, saying that it is equal to gold for filling teeth, or that it will preserve them for any great length of time.

"Yours, with much respect,

"J. & E. G. TUCKER."

"Philadelphia, June 11, 1847.

"My Dear Sir,—Yours of 17th instant is before me. As to your first inquiry, I would say, that I have not considered amalgam fit nor safe for stopping teeth, and have never used it.

"I cannot consider any one honest who would use it, and say it was better than gold; if they be honest and use it, they must be grossly ignorant, and consider the community to be so also.

"Very respectfully, yours, LEWIS ROPER."

"Dr. E. Parmly."

"Baltimore, June 11, 1847.

"My Dear Doctor,—In reply to your note of the 8th instant, I beg to state that, during the last ten or twelve years, my opportunities for observing the effects of amalgam have been, I am sorry to say, very frequent, and I have yet to see the first case in which any real benefit has been derived from its use: on the contrary, many cases have fallen under my observation, in which very pernicious effects had resulted from its use. In short, the result of my observations upon the subject is, that it discolors the teeth, *often* destroys their vitality, frequently induces tumefaction and tenderness of the gums, buccal membrane, and alveoli-dental periosteum, vitiating the secretions of the mouth, and sometimes causing salivation.

"In conclusion, I am decidedly of opinion, that any tooth which can be filled with any material and rendered serviceable, may be filled with gold. Entertaining these views, and they are the result of critical and extensive observation, I am constrained to believe that those who use and recommend amalgam, as better than gold for filling teeth, are either deceived themselves with regard to its effects, or wish to deceive their patients.

"Very truly and sincerely yours, C. A. HARRIS."

"Eleazar Parmly, M. D."

"Cazenovia, June 15, 1847.

"Dear Sir,—In reply to yours, I have to say, that I consider amalgams *not only unfit* but *dangerous* for plugging teeth; unfit, because they do not answer the purpose of a proper stopping; inasmuch, as like all other metallic compounds and cements, in passing from a soft to a hard consistence, they necessarily *contract*, leaving a space between the filling and the walls of the tooth, thereby defeating the prime object of a good stopping; to wit, impermeability to fluids, and other modifying influences from without.

"It is unfit, as it easily oxydizes and discolors the teeth; and further, because in skilful hands it is never necessary, gold and tin being infinitely superior. It is dangerous, because it readily unites with acids, with which it may come in contact in the mouth; and may thus generate a poisonous compound, nearly akin to corrosive sublimate, which is constantly being received into the system. It is also dangerous as corrupting the secretions of the mouth, and inducing inflammation of the gums and alveoli, and because its effects can never be fully anticipated, every gradation of effect having been produced, from the most imperceptible, *even to death.*

"In view of these facts, and from my own observation and experience, I cannot but consider those of doubtful morality, who declare that an amalgam of mercury and silver is better than gold for plugging the teeth.

"Very respectfully, yours, etc., WM. H. DWINELLE."

"BALTIMORE, June 19, 1847.

"DR. E. PARMLY,—Dear Sir,—I have just received your note of the 17th, and in reply I can only say, that I have seen many teeth which had been filled with amalgam, and from my observation of its effects upon the teeth and other parts of the mouth, I do not hesitate to say that I consider it *decidedly pernicious.* Viewing the matter in this light, I cannot regard those who use it, asserting that it is better than gold, as honest or sincere in the declaration they thus make.

"I am, very respectfully, yours, E. NOYES."

Leonard Koecker, M. D., who is well known in this country and in Europe, as being one of the most celebrated dentists in the world, and whose practical skill and scientific knowledge has rarely been equalled in the profession, says, under date, "London, June, 1846," in relation to the use of amalgam, "nothing but the grossest and most culpable ignorance of the true principles of general as well as of dental surgery, can form an excuse for such a practice, by which, in fact, the beautiful remedy of arresting the progress of caries in teeth, for the purpose of stopping or filling them, is perverted into the means of destroying their vitality, and making them the cause of the most dangerous diseases, to which the gums, sockets, maxillary bones and cavities are not only liable, but by which not unfrequently even the most important organs and functions of sight, hearing and smell, are impaired and gradually destroyed, or which may sometimes end in becoming cancerous, and proving fatal. The most distressing neuralgic diseases of the face and head, are also, in most cases, the result of such malpractice."

If you have paid any attention to the late controversy in the public journals, in relation to this matter of amalgam, you have not failed to perceive that the advocates of it have contended strongly that it is only used in cases where gold cannot be—this is not true. One of our best physicians called upon me, and said, that a patient of his was under the influence of mercury, from having had her teeth filled with "paste." On an interview with this lady, I removed amalgam stoppings from eight teeth, all of which have since been successfully filled with gold—a very common case.

I also have testimony to prove, that a ceelbrated user of amalgam, has lately taken the precaution to have it removed from his own teeth, and gold supplied in its place, by one of our best dentists.

Feeling a strong desire to have the question of the fitness of amalgam for stopping teeth forever set at rest, I placed in the hands of Dr. James R. Chilton, well known as the distinguished chemist of this city, several teeth which had been extracted on account of extreme suffering, after being filled with the amalgam; with the request that he would submit them to chemical tests. The following letter from that gentleman contains the result of his investigations, and fully establishes the truth of all I have contended for, as to the effects of amalgam upon the teeth, and proves beyond controversy that amalgam should never be used in the mouth, exposed as it is to the action of agents, producing not only the oxide but sulphuret of mercury, both of which, when taken into the system, produce the specific action of mercury; and small as the quantity may be so produced, whether in the mouth or after the substance had passed into the stomach, it has been clearly proved to be quite sufficient, under peculiar circumstances and in susceptible constitutions, to be the cause of alarming and disastrous consequences; besides, by its deleterious action upon the teeth themselves when largely used, causing their inevitable destruction, by blackening, decomposing, and completely breaking up their entire structure.

"New-York, Nov, 13, 1847.

"E. Parmly, Esq.—Dear Sir,—In accordance with your request, I have made a chemical investigation of the various decayed teeth which you handed me, the cavities of which were more or less filled with the amalgam of silver and mercury. These teeth presented the appearance of having been filled a long time previous to being extracted. The metallic fillings of each was quite black, and in some it was of a porous or spongy texture. Upon breaking open the teeth, and removing the fillings, the cavities, to a considerable depth, were found to be greatly discolored, some being quite black, and in one it was of a dark green color, which extended even to the extremity of its roots.

"From the various experiments which I have made, both upon the external surface of the amalgam found in the cavities of these teeth, and upon the discolored portions of the teeth themselves, I have no doubt that the discoloration has been produced by the decomposition of a portion of the amalgam by the agents with which it has come in contact in the mouth, thereby producing both oxide and sulphuret of mercury, with a portion of sulphuret of silver.

"The tooth, the root of which was colored green, contained oxide of copper, no doubt derived from the amalgam which may have been made by mixing mercury with the filings of ordinary silver coin, which always contains a portion of copper.

"Very respectfully, yours, JAMES R. CHILTON."

In conclusion, permit me to say, that however strongly amalgam may be recommended by some, who, for convenience, use it, regardless of consequences; and by others, because they, from a total want of professional skill and ingenuity can use nothing else, its true character will be found in the foregoing testimony, which truth can neither controvert nor set aside.

I have the honor to be, with high respect,

Your obedient servant,

E. PARMLY.

No. 1 Bond street, November, 1847.

PART SECOND.

Critical Analysis.

Art. IX.—*Chemistry, in its Application to Agriculture and Physiology,* By Justus Liebig, M. D., Ph. D., F. R. S., M. R. J. A.—From the fourth London Edition, revised and enlarged. New York: Wiley & Putnam, 1847.

This is an octavo volume of 400 pages, on good paper, and fair type; and like most of the writings of the distinguished author, will be read with interest by all who are devoted to the cultivation of the subjects on which it treats. But the only part of the work which more particularly interests the medical reader, is the last chapter, devoted to the consideration of "Poisons, contagions, and miasms;" and hence it is to this alone that we shall confine our attention in the following brief review. "The action of inorganic compounds," says Liebig, "such as acids, alkalies, metallic oxides, and salts, can in most cases be easily explained. They either destroy the continuity of particular organs, or they enter into combination with their substance." Thus the mineral acids, oxalic acid, caustic potash, &c., all produce a direct destruction of the parts to which they are applied, and hence their action is likened to that of mechanical injuries. The action of what the author terms "proper inorganic poisons," such as Arsenious Acid, Bichloride of Mercury, Nitrate of Silver, and Carbonate of Lead, is owing, in most cases, to the formation of a chemical compound by the union of the poison with the constituents of the organ upon which it acts; it is owing to the exercise of a *chemical* affinity more powerful than the vitality of the organ." These substances are represented as combining chiefly with the albuminous and gelatinous tissues, and imparting to them the property of resisting the ordinary influences of decomposition or decay. But the same combination that gives the tissues the power to resist decomposition, also renders them incapable of organic changes or transformations, and hence the rapidly fatal consequences. The purely chemical action of this class of poisons is still more clearly set forth in the following paragraph taken from page 361. "These considerations enable us to fix with tolerable certainty the limit at which the above substances cease to act as poisons. For since their combination with organic matters must be regulated by *chemical* laws, death will inevitably result, when the organ in contact with the poison finds sufficient of it to unite with *atom* for *atom:* whilst if the poison is present in smaller quantity, a part of the organ will retain its vital function." The reason why organic lesions often appear very slight in post-mortem examinations after poisoning with these substances, is because the alterations of structure occasioned by the chemical combination of the poison with the organized tissue, are not visible to the eye. But when the action of the arsenic or other poison is confined to the surface of an organ, as the mucous coat of the stomach, those parts which enter into combination with it are separated in the form of eschars. And hence if death should follow, visible ulcers, corrosions, etc., will be found. The purgative action of neutral salts, such as sulphate of magnesia, sulphate of soda, chloride of iodium, nitrate of potash, etc., Liebig represent as purely physical; and likens it to the action of salt strewed on fresh flesh, from which it extracts sufficient water to immerse itself in the brine. Thus on page 357 he says, " when a solution of a salt, in a certain degree of dilution, is introduced into the stomach, it is absorbed; but a concentrated saline solution, in place of being itself absorbed, extracts water from the organ, and a violent thirst ensues. Some interchange of water and salt takes place in the stomach; the coats of this viscus yield water to the solution, a part of which, having previously become sufficiently diluted, is, on the other hand, absorbed. But the greater part of the concentrated solution of salt remains unabsorbed, and is not removed by the urinary passages; it consequently enters the intestines and intestinal canal, where it causes a dilution of the solid substances deposited there, and acts as a *purgative.*" Again, " each of the salts just named possesses the purgative action, which depends on a physical property shared by all of them ; . . . . . The *composition* of the salts has *nothing* to do with their purgative action ; it being quite a matter of indifference as far as the mere production of this action is concerned, (not as to its intensity,) whether the base be potash or soda, or in many cases lime and magnesia; and whether the acid be phosphoric, sulphuric, nitric, or hydrochloric." The modus operandi of contagions and miasms the author explains on the principle of chemical action or fermentation long since announced by La Place, viz: that "a molecule set in motion by any power can impart its own motion to another molecule with which it may be in contact." The similarity or rather identity of the action of these morbific agents, with chemical fermentation, is very distinctly announced by Liebig in the following quotation from page 368. " The mode of action of a morbid virus exhibits such a strong similarity to the action of *yeast* or liquids containing sugar and gluten, that the two processes have long since been compared to each other, although merely for the purpose of illustration.— But when the phenomena attending the action of each respectively are considered more closely, it will in *reality* be seen that their influence depends on the *same cause.*" He divides these agents into two classes, one represented by the action of yeast on sugar by which a change or fermentation is produced without reproducing the yeast; the other by the action of yeast on substances containing gluten by which it is itself reproduced. The first class includes all those deleterious agents arising from vegetable and animal decomposition, which though they induce diseases of greater or less severity, are not themselves generated in the diseased system and are consequently called non-contagious. The second includes those contagions or specific viruses which are capable of being generated or reproduced in the animal system laboring under their influence ; and susceptible of indefinite propagation from one individual to another. Thus we are told on page 378 that, "when a quantity, however small, of contagious matter, that is of the exciting body, is introduced into the blood of a healthy individual, it will be again generated in the blood, just as yeast is reproduced from wort." Again; on page 382 the author says that, "if the manner in which the precipitated *yeast* of Bavarian beer acts be called to mind, the modus operandi of vaccine lymph can scarcely be matter of doubt. Both the kind of yeast here referred to and the ordinary ferment are formed from gluten just as the vaccine virus and the matter of smallpox are produced from the blood. Ordinary yeast and the virus of human smallpox, however, effect a violent tumultuous transformation, the former in vegetable juices and the latter in blood, in both of which fluids respectively their constituents are contained, and they are reproduced from these fluids with all their characteristic properties. The precipitated yeast of Bavarian beer, on the other hand, acts entirely on the sugar of the fermenting liquid, and occasions a very protracted decomposition of it, in which the gluten, which is also present, takes no part. But the air exercises an influence upon the latter substance, and causes it to assume a new form and nature, in consequence of which this kind of yeast is also reproduced. The action of the virusof the cow-pox is analagous to that of the low yeast; it communicates its own state of decomposition to a matter in the blood, and from a second matter is itself regenerated, but by a totally different mode of decomposition; the product possesses the mild form, and all the properties of lymph of cow-pox." The foregoing extracts are sufficient to give the reader a very distinct view of the author's mode of explaining the modus operandi of poisons, etc. And every one at all versed in the history of medicine will recognise it as a revival of a very old medical theory, now again put forth in the author's own peculiarly bold and ingenious style. A style indeed, which from its very boldness, has probably captivated more minds, and led to the adoption of more errors than that of any other writer of the present day. But Liebig's theory of the action of poisons, is not only wanting in originality, but equally so in proof. Thus it may be that arsenious acid, enters into chemical combination with the living organized tissues, and by such combination destroys their vitality; or it may destroy their vitality by some other mode, and enter into combination with the gelatinous portion of the organs afterward. Where is the proof? So the action of vaccine virus may be analogous to the workings of yeast from Bavarian beer; and all the ancient doctrines of fermentation may be true; but we look in vain for anything beside the author's assertions to prove them so. Hence every reader should hesitate and examine for himself before placing too much reliance on his conclusions, however plausibly set forth. It was not our intention in the present article to examine the subject critically, but simply to give a fair view of the author's opinions, and leave their truth or falsity to be canvassed hereafter.

N. S. D.

Art. X.—*A System of Surgery.* By J. McChelius, Doctor in Medicine and Surgery, Public Professor of General and Opthalmic Clinic in the University of Heidelberg, etc. etc. etc. Translated from the German, and accompanied with additional Notes and Observations, by John F. South, Late Prof. of Surgery to the Royal College of Surgeons, of England, and one of the Surgeons to St. Thomas's Hospital. In three volumes, pp. 640, 586, 942; Philadelphia: Lea & Blanchard.

We here have the completion of the great work of Chelius, the first number of which we noticed in our sixth volume, p. 116. We then expressed a high opinion of the merits of the portion submitted to our examination; and now that we have an opportunity of going through the entire work, we find our favorable impressions not only confirmed, but strengthened. It has already passed through six editions in Germany, and been adopted as a Text Book in the principal medical schools of that country; and in addition to this, it has been translated into seven different languages of Europe, and been universally recognised as standard authority on all matters relating to surgical science. The value of the work, however, is greatly enhanced by the annotations and comments of the English and American editors; although the modesty of the latter has prevented the insertion of his name on the title page altogether, we know not where we shall find a more complete and thoroughly elaborate digest of Surgery, in any language, than is to found in this excellent work. In character it differs essentially from the equally voluminous work of Velpeau; and, without instituting a rigid comparison between their respective merits, we may say that it will be found not less useful and satisfactory than the treatise of the great French surgeon. We trust that the spirit and enterprise of the worthy publishers, in presenting to the American profession such invaluable publications as this, may be richly rewarded, and that they will be amply encouraged in their laudable career of enriching our libraries with the choicest productions of foreign medical press.

One striking excellence of this work is the complete account it contains of British surgery, its principles and its practice, as exhibited in the writings of its illustrious masters, the Coopers, the Bells, the Hunters, Pott, Lawrence, Brodie, Abernethy, Liston, Cusack, Syme, Wardrop, Hay, Hennen, Guthrie, Travers, Earle, Green, Howship, Tyrrel, Mayo, and others. It is, in fact, a complete encyclopedia of surgical science, containing the views of all the principal living and dead surgeons, of all countries, and all times; and the practitioner will rarely fail in finding on its pages whatever he may seek relating to this important branch of the healing art. It forms, indeed, a very complete surgical library in itself, and we should scarcely wish to be better armed for the practice of the art, than to have its contents snugly stowed away in our memory, and the book itself within our reach, wherewith to refresh it, as occasion required. The work, however must be studied to be properly appreciated; any brief notice, like this, such as our limits allow, can give but a very faint idea of its merits. Under each article or subject treated of, is a complete bibliography, which will enable the reader to consult any other works relating to the same topic. The American editor has made many judicious additions; and the style in which the work is got up, icluding typography, paper, and binding, does great credit to a house whose issues have no superiors in these respects in this country.

Art. XI.—*Observations on the Poisonous Properties of the Sulphate of Quinine.* By William D. Baldwin, M. D., of Montgomery, Ala. 8vo., pp. 22. 1847.

This is a reprint of an excellent article from the Am. Jour. of Med. Sci., April, 1847. Dr. B. has investigated with much care the effects of Quinine upon the animal economy, and his conclusions are similar to those which we have long since adopted. We quote in the first place its toxicological effects, as observed in numerous experiments upon *dogs*.

"*Symptoms* which followed the ingestion of large doses of quinine into the stomachs of dogs:—*restlessness* generally preceded all other symptoms, as was indicated by the animal changing its position often, and constantly moving from place to place. *Vomiting*, or, in those cases where the esophagus was tied, efforts to vomit succeeded. *Purging* was noticed occasionally, but in no instance except where the medicine was taken by the stomach. Then came on *muscular agitation* or *tremulous movements* of the body and extremities, with a *constant motion of the head*, resembling somewhat *paralysis agitans*. In attempting to walk, the dog would totter from side to side and fall, or if he maintained his feet, would walk in a direction different from the one which he seemed to desire. When under the full operation of the poison, the power of locomotion, or even the power of standing in the erect position, was lost altogether, the extremities apparently *completely paralyzed*. This state was accompanied with more or less *excitement of the vascular system;* the pulse increasing in frequency, and rising from 110 to 160, and in one instance even as high as 240 per minute. *Great oppression of the breathing* was present and sometimes *frothing at the mouth*. The *dyspnœa* in all instances was excessive, sometimes panting, at others *slow* and *labored*, resembling in a most striking manner an acute attack of asthma; countenance expressive of great distress and anxiety. The *pupils of the eyes were invariably dilated*, and generally to an enormous extent, leaving but a small ring of the iris perceptible, and *vision*, as well as could be judged, *was entirely lost*. *Convulsions* were observed in every case (except one), which was watched to its termination, where the dose given was sufficient to produce death, and in one or two instances where the medicine failed to produce this result. *Furious delirium* was present in one case, as was manifested by the dog barking and biting at everything about him. Sometimes a *profound coma* would ensue, accompanied with slight *muscular agitation*, *slow* and *heavy breathing*, terminating in death in a very few minutes after the poison had been taken, and in a few instances the subject seemed as if stunned by some sudden and powerful blow and violent fit of apoplexy. This latter effect, however, was only observed when it was given to young dogs (half grown and under) through the jugular vein or peritoneum. Its effects upon puppies seemed to be *proportionately* much greater than upon dogs fully grown.

"The time required to produce death varied very greatly with the quantity given and the age of the subject, as well as the mode and manner of its administration, and in some instances it varied considerably when the dose, mode, and all other circumstances of its administration were supposed to be equal; for whilst in some instances fifteen or twenty grains produced the uniform and peculiar train of toxical symptoms, succeeded by death in a very short time; in other instances it required these quantities doubled and repeated until 120 grains had been taken, and a much longer time to produce the same results. This fact is in accordance with my experience relative to its medical action upon the human subject, showing that it is governed more, perhaps, in its modus operandi by inherent idiosyncrasies, or created predispositions, than any other remedy. The modes of giving it adopted were by the stomach, the cavity of the abdomen, and by the jugular vein. When given by the stomach it produced vomiting, and was thrown back generally before a sufficient amount to produce death could be absorbed. By dissolving and largely diluting it with water, a sufficient quantity was absorbed to produce death, in this manner, in one instance. In almost all of the experiments with it by the stomach, however, the œsophagus was ligatured. When dissolved and given by the *stomach* its first effects were observable in about twenty minutes, sometimes shorter or longer, and death resulted in from one to thirty-six hours, usually in four or six. An empty stomach facilitated its operation greatly. When injected into the *peritoneum* in full doses [40 grs.] its effects were appreciable in from four to six minutes, and death occurred in from thirteen to thirty minutes. When injected into the *jugular vein* (in giving it by this mode great care was taken to prevent the admission of air), its first effects were manifest in a space of time so short as to be almost inappreciable; not more than a few seconds after the nozzle of the syringe was withdrawn, and death occurred in one or two minutes. In all instances, except one, the quinine was dissolved in water by the addition of sulphuric or other acid in quantities barely sufficient for this purpose.*

"When the experiments went far enough to produce amaurosis, short of death, the vision was regained after a time. In one instance the dog remained *totally blind* for two weeks, and afterwards regained his vision slowly. This is also a feature in the second case reported in the commencement of this article. The man regained a very useful degree of vision after a short time. From these, as well as other cases of the kind reported, it would seem that amaurosis from this cause is not likely to be permanent.

"Though it operated much more promptly when injected into a vein or the peritoneum, yet I did not observe that it operated with more power or force: that is, I did not discover that a given quantity administered in this way would produce death more certainly than when given on an *empty* stomach. 28 grains injected into the cavity of the abdomen in one instance, and 20 grains injected into the jugular vein in another, failed to produce death; yet these quantities *did* produce death in other instances, as well when given by the *stomach, as by these modes.*

"*The post-mortem appearances* were equally uniform with the symptoms before death. The most prominent and characteristic appearances were the *dark, fluid* and *defibrinated* condition of the *blood* and the *congested* state of the parenchyma of the *lungs*, resembling very much *red hepatization.* The vessels of the membranes of the brain were engorged, so also were the liver and kidneys in a few instances. The stomach and bowels were vascular and highly injected in patches. The membranes of the spinal cord were more or less vascular, and, in one instance, a semi-fluid coagulum of blood was found in the upper half of the theca vertabralis. This was probably owing to the subject being very young, and the convulsions being much more violent and frequent than in any other instance.

"Thus it seems clear that quinine is a *poison*, and one which may be made *directly fatal to life;* and if these experiments upon the dog, *in themselves* are not conclusive of that fact, which the concurrent testimony of toxicolo-

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* "In one instance where it was made into a bolus and enveloped in a slice of bacon and introduced into the stomach, vomiting occurred in twenty minutes, and a large portion of the medicine returned. Except that it did not produce death, its effects did not differ in this from those observed in other instances where it was dissolved and given by the stomach."

> gists would justify us in believing, they at least become so when it is remembered that the symptoms which its exhibition gave rise to, are not only strongly corroborated by, but were almost identically the same with those observed in the human subject, in the few instances where poisoning from this substance is known to have been produced. There is not a symptom noticed in these experiments which has not, at one time or other, been observed in its operation upon the human subject, and the two cases of poisoning in the human subject reported in the commencement of this article, where the striking and peculiar assemblage of symptoms which followed its administration was so completely identical with those observed in the dog, most clearly establish the fact that the manifestations of its *poisonous operation*, at least upon the dog, are identical with those observed in the human subject, or at any rate do not differ more than they do in different instances on 'man and man.'
>
> "Its operation as a poison, as well as a remedy, is certainly peculiar, and it seems difficult to assign it to any particular class of poisons, differing in some respects from all of them. It appears to resemble in its action, more closely than any other, those of the '*second class*' of Orfila, or the class of 'narcotic poisons.' It does not seem to possess any hypnotic properties; in this it differs from most of the substances included under this head. I do not mean to touch the much agitated question of the mode of its remedial operation, but desire to speak of its poisonous action only; and on this head will only add farther, that its operation seems to be principally upon the nervous system, as is clearly demonstrated in the derangement of the senses of vision and hearing, and respiratory functions, as also in the general muscular agitation, convulsions, etc. As it has been detected in the urine, there can be no doubt but that it enters and mixes with the circulating masses of the body, and through this means exerts a *direct* influence upon the nervous system, which, as we have seen, is *eminently* excitant when given in quantities calculated to destroy life."

These experiments certainly prove the poisonous action of this drug when given in large doses, and should teach us caution in giving it in mammoth doses, as is too often unnecessarily practised. With respect to an *antidote*, Dr. B. thus remarks:—

> "As yet I am aware of no *antidote* which will with any certainty, negative the injurious effects of quinine. I have given the sulphate of morphine to patients rendered very restless and uncomfortable from a high state of *quininism* having been induced, but cannot speak with any confidence as to its effects. I have not known it to produce an immediate alteration in the state of the patient's feelings, but have witnessed an improvement in the course of a few hours, and in no case do I remember to have seen the patient get worse under such circumstances; but how far this may have been dependent upon the suspension, or partial withdrawal of the quinine [which generally takes place under such circumstances,] and how far upon the morphine, it is difficult to say. This, however, at best can only be a partial antidote, palliating the effects of the poison, and of course can in no wise alter its medicinal, poisonous or chemical qualities or constitution. And, did we possess an agent of the kind, whose properties would render speedily inert those of the quinine, it would avail us but little; for, it is not a substance of that character which would be likely to be administered with the wilful intention of destroying life, and an antidote will, generally, only be wanted when the physician finds he *has pushed his remedy too far*, and its injurious effects are already being manifested, and, in that case, the medicine has already passed the limits where an agent of the kind could reach it.
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> "As it is altogether likely that quinine is absorbed, and enters into combination with the circulating fluids of the body, and in all probability produces its impression upon the system in this way, its operation is thus a *remote* one, and the means adopted to prevent or relieve its injurious effects should be such as are found available in combatting the poisonous impressions of

other substances, supposed to act through the same medium. Thus, if symptoms arise during the administration of quinine calculated to create alarm, or to excite suspicion of its poisonous influence, it would be well to premise all treatment by the administration of a full and prompt emetic, in order to free the stomach of any remaining portions, which may not have been absorbed. The next step, then, should be to eliminate, as rapidly as possible, that portion which has reached and mingled with the fluids of the body, and for this purpose, it has been recommended in other instances of an analogous character, to *augment the natural secretions of the body.*

"This mode of treatment, which is based altogether upon the inference that the poison is absorbed and enters the circulation, and recommended as applicable or efficient only to poisoning from substances deemed to act in this way, seems to be a most reasonable one. I have certainly never witnessed or heard of any injurious, or seriously-unpleasant effects from quinine, when the functions of the skin and kidneys were being actively performed during its influence—especially the former. For this purpose the copious administration of warm diluent drinks, and hot pediluvia, or warm bath, would seem advisable. When the state of the pulse is such as to justify it, blood-letting it would seem, is another channel through which the quinine may be abstracted from the system, not only by freeing the system of so much as may be contained in the quantity of blood actually drawn, but as assisting also in promoting the secretions of the skin and kidneys.

"I am of opinion, that its poisonous effects may generally if not always be avoided by proper attention to the mode of its administration. A very common mode of administering it, and one very much insisted upon by patients generally, on account of its disagreeable taste in any other way, is in the form of pills. And, it is a practice with apothecaries, and with physicians who are in the habit of dispensing their own medicines, to keep a quantity of pills constantly on hand. These when made from a mass, formed by the addition of gum arabic, or common paste, get very hard before they are used, and when given under such circumstances, I have known them to pass through the bowels *entirely undissolved.* And, when combined with substances calculated to keep them soft, or even when prepared as administered, they may, and no doubt do occasionally become entangled or enveloped in flakes of mucus or other contents of the stomach and bowels, and thus pass off undissolved, and without effect, or they may meet with some obstruction in the bowels, and be *retained.* When this is the case—that the medicine is not dissolved, or absorbed regularly, nor yet does it escape from the bowels, from some cause or other and still being introduced into the system at regular intervals—a large quantity in this way may collect, until suddenly meeting with a solvent, (as first supposed by Briquet,) its whole force is spent upon the system at once, and it thus becomes the cause of serious mischief, when, if the same quantity had been given in such a way as to insure its timely absorption, such a result would not have happened. Of all the forms of giving it, that of the pill seems to me to be the most decidedly objectionable, and should never be adopted in cases of much importance, where it can be avoided. Another very common mode of giving it is by suspending it in syrup, mucilage or water. This is certainly less objectionable than that of the pill, though not equal to that of the *solution*, made by the addition of some acid in quantities barely sufficient to dissolve it. I prefer sulphuric acid to any other. This mode of giving it has been recommended by Briquet, on account of its safety. In my estimation it possesses a most decided preference over every other mode of administering it, and is the only one from which we can with certainty expect the timely and full effect of the medicine.

"When the stomach is in a condition to bear it, its absorption and activity can be greatly facilitated by *largely diluting* it with warm water. When dissolved and diluted in this way, even when given in what may be termed "heroic doses," provided the quantity to be taken is divided and given at intervals of one, two or three hours, its deleterious effects may always be avoided *and the remedy persisted in with safety* in the absence of any manifestation of its influence, which we should never feel safe in doing when giving the "insoluble di-sulphate," whether in the form of pills or powders; for, in the former case we will always be advised of its unfavorable influence early enough for a timely withdrawal or modification of the dose. When given in this way, a given quantity seems to produce a greater effect in a much shorter time, than even a larger quantity when prescribed in either of the other forms; so that besides being a much safer mode, it is a more economical one, both as regards time and medicine; and the reason seems entirely obvious, for by dissolving and diluting it largely in this way,. besides being *dissolved ready for the absorbents*, it is brought in contact with a much larger absorbing surface, and many particles which otherwise might lodge about the contents of the alimentary canal and thus pass off with them, in a state of solution would readily be taken up and appropriated by these vessels.

"This mode of giving quinine cannot be urged too strongly, for besides being a *saving* of a valuable and costly drug, and preventive of its poisonous effects, it will be found of great assistance in prescribing it generally. In cases requiring much delicacy and discrimination in their management, and where the propriety of the prescription is a matter of debate with the physician himself, and he wishes to be made sensible of the effect of the first dose of his remedy, in order to determine upon its continuance, it becomes a matter of great moment that the medicine should be administered in that form in which it will be most certainly and speedily appropriated by the system, and its operation made manifest to the physician. Dr. Holmes, in the number of this Journal for October, 1846, states that he is in the habit of giving quinine eighteen hours before he desires its effects. My experience with it leads to widely different conclusions. I have certainly witnessed a most sensible effect from a single dose one hour after it was given, and have prevented the recurrence of a most malignant form of chill by giving 22 grains diluted with oz. viij. of water one hour and a half before its expected invasion; and, in one instance, in the experiments on dogs, where 30 grains of quinine were dissolved and given to a half-grown puppy, on an empty stomach, efforts to vomit and convulsions occurred in six minutes and death resulted in fifty-eight minutes after the medicine was received into the stomach. This may be thought somewhat extravagant, yet it falls far, *very far*, short of the statements of M. Piorry relative to the rapidity of the action of quinine upon the human subject."

With respect to the *modus operandi* of quinine, Dr. B. thus observes:—

"Experience has not yet defined the limits of the application of quinine to morbid action, nor has it brought about any settled opinion of its modus operandi. It has been prescribed in various and opposite forms of disease, nor yet is there wanting evidence of its value in each. Whilst by some it is vaunted as a contra-stimulant, sedative, and antiphlogistic, by others it is employed purely for its excitant and stimulant properties. There are others again who view it as indicated in all morbid action exhibiting periodicity, or marked exacerbations and remissions among its features, and as antidotal, or opposed in its action, to malarial poison; and, still, there are others who laud its powers in controlling diseases which are neither marked by periodicity or supposed to depend upon the influence of malaria. In all this there seems to be something as incomprehensible as the mysterious action of the remedy itself. I allude to this subject not for the purpose of offering any *views* in relation to the mode of its remedial operation, but desire to mention, in connection with it, a fact, which seems to me to possess a degree of interest. Quinine *has been given* in inflammatory affections of the brain. and with reputed success; yet if there is any disease or complication of disease where the enthusiast would hesitate to employ his favorite remedy, or which is almost universally regarded as contra-indicating the use of quinine, it seems to be that of meningitis, more especially when it is not attended with notable remissions. During the past summer I treated two of the worst cases of this kind which I remember to have ever seen recover, in which the value of quinine was most decidedly proved."

While Dr. B. admits that it is occasionally a stimulant, he yet maintains that it has "on innumerable occasions a most decided and unmistakable *contra-stimulant* effect." (p. 19.) Ten grains is the largest dose usually recommended by Dr. B. His usual mode, he states, is to give from 4 to 6 grs., and repeat at intervals of 2, 3, or 4 hours until 20 or 30 grains have been taken. Occasionally he has given it in larger doses, sometimes, for want of time, 20 to 24 grains at one dose; but in such cases he never repeats it in the same dose. Dr. B. considers quinine, very justly, to hold the first rank in the treatment of southern diseases; but yet he is confident that it is now being used too recklessly and indiscriminately, and in many cases with fatal consequences. Dr. B. gives a case which occurred in his own practice, where it proved fatal in a child 6 years old, in which it had been regularly given throughout two days; on the first, 2 grains every second hour, and on the second day, 2 grains every fourth hour, and then 4 grains given and repeated in three hours, nine hours after it had been suspended altogether. The author thinks that from 50 to 80 grains of a *pure* article of quinine given in solution at one dose, would produce death nine times out of ten in healthy adults, and occasionally in even smaller quantities. He also believes that many fatal cases from its abuse have occurred, of which the profession have not been advised; and that it has often been the cause of injury and even death when its agency has not been recognised, especially in the hands of those who were prepared to witness only its salutary operation.

ART. XIV.—*Criticisms and Controversies, relating to the Nervous and Muscular Systems.* By BENNET DOWLER, M. D. of New Orleans. (From the New Orleans Medical and Surgical Journal, September, 1847). New Orleans, 1847. 8vo. pp. 36.

THIS is a defence of the author's article entitled, "Experimental Researches on the Post-Mortem Contractility of the Muscles, with Observations on the Reflex Theory," as published in our Journal for May, 1846. (Vol. VI. p. 905). As was to have been expected, it has not received the unanimous approval of foreign critics, nor has it received, as it seems to us, that degree of attention at home, to which its merits entitle it. Mr. Marshall Hall, whose doctrines it ably opposes, manifested a more than usual asperity towards its author; as shown in an extract from a letter, which we received from him, and published at the time. The Medico-Chirurgical Review, also, took the author of "Reflex" to task, to say nothing of sundry other Journals; and now we find Dr. D. in the very midst of the battle, wielding his controversial broad-sword with the skill of a veteran, and the energy of a Saladin. The result remains to be seen. As a specimen of Dr. Dowler's style and manner, we quote a few pasages.

"Far be it from me to say a word in depreciation of the transcendent value of neuralogical knowledge. The brain, its spinal prolongation, the individual nerves, constitute a central sun, which illuminates and controls several minor systems, which would otherwise roll on in cheerless obscurity. The senses themselves, those inlets of knowledge, psychology, the doctrine of the mind, many morbid changes and healthful actions, vital functions and anatomical relations, have been not only elucidated, but to a great extent referred to their appropriate laws,—not indeed, by theories in themselves as inconceivably obscure as are the phenomena whence they are illegitimately derived, under the denaturalizing vivisections of the inferior animals, not by meaningless tremors, vibrations and convulsions in the muscles from irritating the spinal roots, and thence generalizing almost without limit,—not by localizing and isolating the functional phenomena (with a precision unknown even to phrenologists,) to a mathematical point or figure in some root or ganglion in the anterior peduncles of the cerebellum, or the thalami nervorum opticorum, as the special residence of the great All or the Me of neurology. Anatomy itself, to which Bell finally gave in his adhesion, is not the only route to be pursued; for strictly, there is not one neurological doctrine, which *à priori* is determinable from mere structure, from any aggregation or configuration of nervous atoms;—here even analogy is as voiceless as the dead. Neither the sense of taste nor the sense of smell can be inferred from any nerve-structure alone. Indeed, the whole material world is up in arms with analogies *against* this view as countenancing the fundamental doctrine of Bell, Hall, and many others, who ascribe motor *force* to the nerves only. It is possible to conceive that the muscles and bones, even the skin and the membranes, from their mechanism, might be endowed with force, motion, and the like; but as for the nervous matter, it has not from its very organization, a much greater pretension in that direction than the blood itself. Analogy (not a very convincing kind of proof, it must be confeseed,) is against this assumed, exclusive moving power as inherent in the nerve. Do men make ropes of sand, or levers of water? The method adopted by the reflex neurologists to show that the muscular force is merely a derivative one from the nerves, is inconclusive, nay, absolutely erroneous, as I have fully proved by adopting their own point of departure. The destruction of the spinal cord, the division of every discernible nerve and all the muscles not concerned in the special functional act intended to be performed, do not in the human subject even diminish the intensity or duration of muscular contractions,—do not prevent regular, and I might say intelligent flexions and extensions to which the spinal methods can make no pretensions."

Again he says:

If logic chopping were allowable, I would adopt the Reviewer's method, and ask, "what other conclusion remains but that the muscles are the necessary organs in sucking, crying, and defecating? Allow the anencephalus infant, a brain, a spinal marrow, a perfect nervous system, and every other organ in the most perfect state, and allow at the same time that, by some freak of nature, the muscles are wanting in their attachments, either at their origins or insertions, then of breathing, crying, and sucking there will be none, of complex associated movements there will be none, and of the Reviewer's exclusive spinal arguments there will be none.* The argument is altogether in my favor, and more than all the experimental proof is mine, beyond question. I have proved that in New Orleans, dead men and women from the icy circle to the torrid zone,—after cutting off the connections with the spinal marrow,—after amputating the shoulder so as not to injure the muscles of the arm, after dividing all the discernible vessels, and nerves, and tissues, except the individual muscles to be called into action, can perform during many hours, definite functional motions, not the tremulous, convulsed, and therefore, unmeaning motions, which from Haller to Bell, have been vaguely referred to irritability, but the elementary or simple motions from which are compounded all the varied actions of the living man! The two muscles which bend the forearm, for anatomical simplicity, and still more for the enormous mechanical leverage which they overcome,* when a weight is placed in the palm, are the most convenient for experimental purposes.

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* "That motions peculiar to life can exist without tho accompaniment of *brain and nerves*, is proved by the existence of those animals which are destitute of them." (Blane's Med. Logic, 121, Amer. Ed.)

Even Bell, admits "that animals, without possessing nervous cords, are susceptible of the impressions and reactions neccssary to their existence." (Anat. and Phys. 11, 41. Am. Ed.)

"I have, as it were, insulated the muscular FORCE, and have noted, very imperfectly I admit, its isolated phenomena, shown its periodicity, its fits of action, duration, direction, exhaustion, extinction, its times, velocities, its decreasing ratios from increasing times, from repeated efforts, and from augmenting weights; nay, more, that it may, in a certain sense, be weighed, that is, exactly counterbalanced by the gravitating force of pounds and ounces. I will not say that I have proved positively, THE EXISTENCE OF AN IMMATERIAL ENTITY OR FORCE IN THE MUSCLE, but, I may say, that I have offered some presumptive proof to that effect. Omitting that immaterial, psychological entity, the soul, where is there so much proof, so many tests, going to show in any other tissue of the body, a force, possibly immaterial, and isolated, possessing so many properties, and which can be approached by so many methods, avenues, and tests? Inaccessible until after death, this force, whatever may have been its complications and dependencies during life, shows an utter independence of the spinal marrow, as well as of the entire nervous system. The brain, the spinal marrow, the nerves, under similar circumstances, appear as so much inert matter, without force, without function, without any apparent vital phenomena whatever, actually dead, and in the strongest contrast to their high functions in life, as the instruments of the mind, of sensation and of some of the principal vital phenomena. But there is a constant bias to assumption, and to be satisfied with the minimum of evidence in neurological doctrines, and the more so, as the subject is obscure; the mind yields to a flattering illusion rather than confess ignorance.

"How brainless infants contrive to cry, suck, and excrete, I will not tell the Reviewer, because I do not know. But this I know, that if Reflexians fix as the point of departure, the morphological type, unmeaning experiments upon the spinal marrow of the inferior animals, under denaturalizing processes, and thence proceed hy analogizing speculations, to appropriate to their theory the encyclopædia of medical science, not excepting 'all the emotions, appetites, and passions, surely, experiments upon the human subject must be far more conclusive and comprehensive, and were they applied in the same latitudinarian manner, nothing would he left for future discovery; muscular motion would be to the organic, what gravitation is to the inorganic world, and the physiological mechanism would be like the celestial, but a matter of calculation, an estimate of simple and compound forces and velocities. Until then, a mystery will hang over the physiology of the 'anencephalus infant,' which, in the mean time, will deserve all the compassion expressed by an old poet—

> 'Ill fated youth! what stars malignant shed
> Their baleful influence o'er thy *brainless head?*"

The following remarks on frogs, are not destitute of interest.

"Is it true that a frog is the *essential analogue* of man in its anatomy, physiology, pathology, parturition, natural history, and so forth? Of the frog,

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* "Bonelli states that the whole force expended by the muscles of the arm, when stretched horizontally, is 209 times greater than that of any weight suspended, at its extremity, and that the force of the biceps, compared with that of brachialis, is as 3 to 2.60, or as 16 to 13, and their absolute forces 300 to 260 lbs. (*Lancet*, May, 1846.)"

Cuvier says, "it buries itself during the winter under ground, or in the mud below the surface of the water, where it continues to live without *food or respiration*."[*] Reaumur knew frogs to live in hot springs at 111°, and Spallanzani, at 138° Fahr.[†] Many facts have been reported, showing that they lived for ages without food and air in rocks and trees, wherein they had been completely and narrowly enclosed, &c. ! Mr. Paget's Report on the progress of Anatomy and Physiology, in the British and Foreign Medical Review, for April, 1845, contains the following statement, which is here somewhat abridged :—'To prove the functional independence of the sympathetic nervous system, Volkmann and Bidder (Müller's Archiv. 1841,) have published an extensive series of experiments on the effects of removing from frogs, the brain, or spinal cord, or both, leaving the medulla oblongata,—the muscles were rendered at once incapable of contracting upon either voluntary or reflex stimulus, the circulation continued unimpaired two weeks after crushing the cord, fourteen days after destruction of the brain, five days after destroying both at the same time ; the pulsations were as frequent and vigorous as in healthy frogs ; the processes of exudation, absorption, urinary secretion, defecation, digestion, continued as usual ; on the whole, no organic function was materially disturbed by the destruction of the brain and spinal cord.'

"The following quotation is taken from documents on the modern discoveries in the nervous system :[‡] 'The circumstances in the structure of frogs pointed out by Volkmann, (an anomalous distribution of ganglia and ganglionic fibrils upon the precise parts which are the subjects of experiment,) must in all experiments on these animals, have been attended by demonstrations only of correspondingly *anomalous*, instead of *regular function*.'—Once more : 'Redi removed the brain from a land tortoise. It appeared for several months to *enjoy life*, and *exercise* its *functions nearly as before the loss of the brain*.'[§]

"Professor Matteucci, in his work on Living Beings, (1847,) maintains, from his celebrated experiments upon frogs, that contractility is the vital property of the muscle *alone*,[||] and cannot be explained by electricity or any known cause. The same number of the Review, which declares in opposition to myself, that the doctrine of Bell and Hall "is a great truth henceforth to be ranked as fundamental,' offers to the rising sun of Italy, superlative laudations : 'Matteucci s work is alike valuable and interesting to the general reader and the professional man, to the natural historian and natural philosopher, to the physiologist and the practical physician, etc.' At the same time it is said, 'our readers will not fail to perceive that the conclusions drawn by Matteucci from *his experiments* are opposed to the views of Dr. Marshall Hall. The Italian professor regards the irritability of the muscular fibre as *inherent*, whereas Dr. Hall considers it as *derived from what he calls the true spinal system.*' Now, if 'the professional mind of Europe' can adopt these contradictory views of the Reviewer, or prove that man can live in good health for months without the brain and spinal marrow, 'that little or nothing can be learned in physiology without these cruel reptilian experiments, (heretofore denounced by the Medico-Chirurgical Review,*) and that premises laid among these, can legitimately be appealed to, in order to bring out conclusions to the medical sciences, so as to harmonize human physiology, pathology, therapeutics, and obstretics, then, it must be admitted, that 'the European mind' has made great advances, indeed. But it may be doubted, whether any act of the 'professional mind,' can make frogs essentially like men, not to say anything of endowing them with a physiological superiority! Sidney Smith maintains that frost cannot be put off by act of Parliament, nor can spring be accelerated by any majority of both houses. In analogy, of an obscure kind, the same difficulty is not experienced. Hamlet saw in the entire world, the analogue of an extensive prison, having 'many confines, wards, and dungeons; Denmark being one of the worst.'—Polonius found in a cloud, the analogism of many things at once; 'it was like a camel, like a weasel, and very like a whale.'

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[*] An. King, 286, Lond. 1840.

[†] Ency. Brit. Ed. 1842, XIX, 153.

[‡] Intro. 3.

[§] Edin. Ency. X Herpetology.

[||] "'Inattention to the structure of nerves has led to *a mistake, that they have a power of contraction*.' (Bell's Anat. Phys. II., 53.) The very nerves which give all motion, have none whatever! Though I am no friend to the *exclusive* motor functions of the nerves, I never could go so far as this, much as it is in my favor. Although the entire limits of this paper, would scarcely suffice to warn the student against the illusions of the microscope, as an *exclusive pathological instrument*, yet, the following statement by M. Mandl, (author of a treatise on the microscope,) before the Academy of Sciences, in a recent sitting, may be worth translating: (See L'Illust, Feb. 20, 1847.) M. Mandl said that he had observed motions in the nervous system of leeches, magnified from 50 to 60 times. He separated a portion of the living leech, from the ganglionic chain, placing it in a drop of water, after having torn its black, cellular envelope, isolating the ganglion and the nerve, he noticed vital contractions as in the muscular fibres. M. Flourens remarked upon the occasion, that he had seen in his experiments upon the functions of the nervous system, a real and active movement on bringing together the two ends of a divided nerve. M. Serres, he continued, had long ago published experiments upon the contractility of the ciliary nerves.

"Professor Liebig adopts the bold assumption, that the nerve is the exclusive source of muscular motion, and this too, in the most literal, nay, mechanical sense, so that the *rôle* of the muscle, is that of a mere subordinate, passive, powerless instrument. (See An. Chem. 66.)"

The following is characteristic of the author.

"Ask, O! student of medicine! ask your unprejudiced judgment, were there ever errors so general, and yet so stupendous, as those now called modern discoveries in the nervous, especially the spinal system. Are they not wholly based on certain experiments, which have no known connection with the doctrines sought to be deduced from them? Have these phenomena any fit scientific application, except to the individual animals or class experimented on? Have these phenomena any probable value even in this identical class excepting the special conditions induced by vivisections, and so forth? Can denaturalizing processes illustrate, nay, constitute complete discoveries in, and for conditions essentially different? Were these phenomena derived directly from man, or from an animal precisely similar, would they be admissible proof, by which to establish the one hundredth part of what is now supposed to be established by them? Are not these phenomena for general purposes obscure, blind, meaningless, and therefore valueless? or at least not yet matured into exact science? These experiments are praiseworthy, and constitute a portion of knowledge highly interesting, in comparative physiology, but very limited in their import; but they neither prove the nature nor *modus* of sneezing, nor do they constitute scientific midwifery; they do not prove that the passions and paralysis, hæmorrhage and convulsions, are exclusively due to 'the true spinal marrow.' These matters are thus, not without reason, alluded to frequently; and, as I have satisfied myself, if not others, that muscular contraction is not dependent on the spinal marrow or nerves, and, that therefore the fundamental principle of the new system is absolutely erroneous, I deem it no crime to publish what I believe, though the times be troublous, though neurological terrorism now reigns, and opposition, like spitting against the wind, is spitting in one's own face. France, so celebrated for medical science, heretofore, generally opposed to the most important improvements and doctrines of English medicine and surgery, (witness Hunter's doctrine, of healing wounds by the first intention,) has bowed to Bellism, and of course, Reflexism will follow. But history is, in such cases, very instructive."

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* "When this, the Fiftieth volume of the Review, recommending as the very basis of physiology, cruel and fallacious experiments, shall be placed side by side with its fellows, will not the great *ci-devant* spirit of that work frown upon the new comer?"

Again the author remarks.

"The reflex-neurologists fail uttterly in showing any positive or even probable connection as cause and effect, between their experiments and theory. The vast assemblage of physiological and pathological phenomena, which they claim as having been explained in the clearest manner by these experiments, have not been traced link by link, either in the ascending or descending series; their order, uniformity, succession, antecedence, sequence, have not been ascertained and made known, with the concurrent but unessential concomitants and co-incidents; their pathological anatomy, whether *material* or *immaterial*, has not been plainly traced to these experiments. Indeed, no material or immaterial morbid anatomy of the spinal cord, the seat of so many diseases, has ever been given, or even described; and yet, there must be in this cord, a change for every malady. What are the spinal anatomical characters of hæmorrhage, or hydrophobia,—sterility, or stranguary,—paralysis, or passion,—asthma, or abortion,—tic, or tetanus,—all spinal in their location? Now, I lay it down as an axiom in morbid anatomy, that no great and important tissue or organ of the whole body, presents on an average, so *few wellm-arked structural alterations*, as the spinal marrow, provided it be examined in its *material form*, from one to six or even twenty-four hours after death, leaving out immaterialities, incorporealities, and spiritualisms. In fact, the *spinalists* have been an unsuccessful sect. Le Gallois, (the date of whose publications on the vital functions of the cord, is not precisely recollected,) early in the present century, claimed the medulla spinalis as the source of life to the entire trunk, as well as the exclusive seat of sensation and motion, all being independent of the brain! The cord ought to be the focus of morbid alteration—if anatomy have anything material in it, as some people have supposed in their simplicity and ignorance. Its physiology, I repeat it, is still more obscure than its anatomy. No one will pretend that there is anything in the physical structure of the anterior roots, by which motion can be recognised or inferred as a nerve-property. The physico-analogical argument is against the supposition, and still the more so when the roots are supposed to communicate to the muscles a power, which they themselves do not possess in virtue of any special physical or anatomical adaptation. I do not positively deny that the anterior roots exercise an influence upon muscular motion during life, but, I contend, that their influence as the exclusive motory force or agent, is not proved. is not even probable, while the muscles do possess adaptations in size, strength, direction, origin, insertion, and mechanical contrivance, every way adapted to act in the most independent manner as motors, as far as any one tissue can lay any claim to independence."*

We conclude with a single quotation more.

"The ink with which the last sentence was written, was scarcely dry, before the last number of the Lancet was received, in which it is proposed to examiners, to *require all candidates to be examined in the reflex theory.*† Innocent youths, never yet guilty of a homicide, *secundum artum*—candidates for M.D.—who have learned in the Lancet, that not one of the Royal Society, (the most learned in Europe,) understands the reflex discovery, (its inventor excepted)—these poor lads are required to comprehend that which the graybeards themselves cannot.

* * * * The sun had gone down upon the earth. The moon was

mounting above the plains of Louisiana, while many reflex-moons were dancing upon the turbid waves of the Mississippi, which rolled noiselessly beneath my window. The pendant gray moss, a parasite of the cypress forest which overlooks the city, now blackened by night, waved silently in the breeze. I fell asleep, as soundly as John Bunyan while writing the Pilgrim's Progress. I dreamed I was a young man, walking thoughtfully upon a shore, but whether it was the shore of the Mississippi, the Chesapeake, the Hudson, the Thames, or the Seine, I could not tell. Hard by arose a great temple, whose spire pierced the clouds. It was the medical college, wherein I was going to be examined for the degree of M. D. I feared the ordeal. Every artery of my head throbbed. I hastened to my room to review my studies. The sciences, one after another, passed before my mind. Surgery with his catlings, scalpels, and saws—chemistry with its crucibles—obstetrics with her screaming infants! To the dead body I was perfectly at home. I marched up to a skeleton, in my room, and struck it with defiance! Dry bones, I know you all! The skeleton grinned! A voice came from its hollow skull. REFLEX! REFLEX! REFLEX! I was once a student, but the nerves distracted me—turned my brain. 'I sought the bright day and with an ardent longing after truth, went miserably astray in the twilight.'—Beware of the reflex function, for even the Royal Society cannot, the Reflexians do not, and the students should not, understand it."

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* "Englishmen ought, by this time, to know something of muscular motion, as Dr. Croone, who died in 1684, bequeathed not only money, but the profits of a house, for annual lectures on that subject. The Croonian Lectures on Muscular Motion have continued 163 years! Many rich prizes, in both Continental and Insular Europe, are awarded annually, for similar purposes. It is easy to swim when held up by the chin!

† June number.

As we might be considered partial umpires in the case, Dr. Dowler being a particular friend, and one of our most esteemed and valuable correspondents, we shall refrain, at present, from expressing any opinion as to the merits of this controversy.

ART. XIII.—*A Text Book on Natural Philosophy, for the use of Schools and Colleges. Containing the most recent Discoveries and Facts, compiled from the best Authorities.* By JOHN WILLIAM DRAPER, M. D., Professor of Chemistry in the University of New-York, etc., with nearly 400 Illustrations. New-York: Harper & Brothers, 1847. 12mo., pp. 381.

LIKE the author's Text Book on Chemistry, which we noticed in a former number, the present work is exceedingly well adapted, as a text book for schools and colleges. Prepared upon the same plan, it gives in separate chapters, the leading points of each lecture, avoiding lengthened explanations and demonstrations, which are supposed to be supplied by the teacher himself; thus presenting to the student a clear view of the great facts of physical science, without perplexing his mind with a multiplicity of details. From a careful examination, we are satisfied it is the best work for the purpose yet presented to the public, and as such, we hope it will have a corresponding circulation.

ART. XIV.—*Wood's Quarterly Retrospect of American and Foreign Practical Medicine and Surgery.* Vol. 1, No. 1, 8vo., pp. 64. R. & Geo. S. Wood, 261 Pearl st., N. Y.

THIS work is after the plan of "Braithwaite" and "Ranking," and presents one feature not found in either of these digests, viz.: its principal contents being made up from American Medical Journals. The present number we suppose can hardly be considered a fair sample of what is to come; but if the plan is fully carried out, as it ought to be if attempted at all, it will supply an acknowledged desideratum in the literature of the profession in the United States, and deserve an extensive patronage. If we are allowed a suggestion, we should say that every American Journal should be regularly consulted in making up its pages, and no article passed by which possesses practical interest. If our journals were all digested and posted up in this manner, within a reasonable space, we doubt not, the work containing such digests would receive the general approval and patronage of the profession. We trust that this will be done in the future numbers of the work.

Art. XV.—*Triumphs of "Young Physic," or Chrono-Thermal Facts.* By William Turner, Esq., A. M., M. D., Member of the New-York Medical Society, etc., etc. 8vo., pp. 31.

It is painful to reflect upon the position which Dr. T. has voluntarily assumed, and it is with no desire to add to the discomforts which he must daily experience, that we condescend to notice the pamphlet whose title we have given. We have formerly regarded the writer as a gentleman of respectable attainments, one who would stand by the honor of the profession, and be the last to suffer it to be tarnished in his hands. We have been grievously disappointed in common with many others, who expected a far different course. We do not pause to ask what possible causes could have induced the writer of this pamphlet to descend so low, as to put forth such a publication as this; they are known to his own heart, and there we leave them. Dr. T., however, need not deem it strange, if a construction be put upon his motives, both by the profession and the public at large, by no means favorable to his reputation, or his standing as a man of honor and integrity. Without charging Dr. T. with being influenced by purely mercenary motives, for we judge no man, we would urge him to pause in his career and retrace his steps. If there is anything good in chrono-thermalism, why in the name of common sense, adopt it, as every one else does, but do not denounce those who cannot accept it as a perfect system of medicine, complete and full in itself, and to which everything else ought to bend. We look upon this doctrine as we do Homœopathy, Hydropathy, Botanic Medicine, etc., etc., as but "fragments of the general science of medicine, distorted, disguised, and misrepresented, to suit the selfish purposes of those, who, possessing more cunning than honesty, find it convenient to bend their pliant consciences to practice on the credulity of deceived and misguided communities."

Dr. T. needs not to be told that the medical profession in the United States is *eclectic* in the largest and most liberal acceptation of the term,—that "it avails itself of every circumstance which can shed light upon or in any manner develop the true character of diseases, and resorts to every remedial agency of every description, within the resources of human knowledge, so far as it may be available, for their prevention, mitigation, and cure;" we know no predilections, no antipathies, but pay homage to truth alone. Since this is so, what manner of excuse can any honorable man have, in proclaiming that any of these segments or cornices of the temple of medicine, constitutes the whole building; and that for his part, he is ready to maintain that the *weathercock* at its summit, if it have one, is virtually and truly the entire structure itself.

Dr. T. proclaims upon the title page of his pamphlet, that he is a "Member of the New York Medical Society." We are somewhat surprised to find that Dr. T. is willing to have it known that he once belonged to the regular profession—we would commend to his notice the following extract from its adopted code of ethics, and to which he bound himself in honor to conform, by becoming a member.

VI. "*Public advertisements* or private cards, inviting customers afflicted with defined diseases; promising radical cures; engaging for no cure, no pay; offering advice and medicines to the poor *gratis; producing certificates and signatures, even from respectable individuals, in support of the advertiser's skill and success, and the like; are all absolute acts of* QUACKERY, which medical institutions should always repress and punish by the rejection or expulsion of those who commit them."

How does the author exonerate himself for a deliberate violation of the code to which he gave his assent by becoming a member of the Society?

With what show of reason can Dr. T. defend himself for his habitual attacks upon the regularly-educated practitioners of medicine?

We quote the following as a sample from his pamphlet:

"The following incident, occurring while these pages are in progress of preparation, illustrates the correctness of the remark of the biographer of Des Cartes, 'the last crime which is forgiven is the announcement of new truths.' Six months before my reprint of Dickson appeared, a medical friend, well known for his numerous valuable contributions to science, and not less distinguished by all those qualities which grace the gentleman, did me the honor to dedicate to me, in very complimentary terms, a new work which he had just prepared. Will it be believed that this act of friendship was made the pretext for excluding him from membership in a new medical association; and that the committee which had charge of the matter actually had the impudent meanness to propose to my friend, that if he would publish another edition of his book, in which the dedication to me should be cancelled, his case should be taken into consideration? Yet such was the fact. Of course the disgraceful proffer was rejected with indignation; but what a base and cowardly proposition for men pretending to be gentlemen! If Chrono-Thermalism and its advocate are to be put down, let it be done in the open and manly way, recognised by all right-feeling and honorable men. Moral assassination, through means of secret cabals, is worthy only of a barbarous age or a degraded class; of an inquisition or a penitentiary. What confidence, let me ask, ought the public to repose in people capable of such infamy? What is not a little odd in this connexion, is the fact that four out of the five persons concerned in the above transaction, only a few years ago signed a paper to the Governor of New York, recommending and eulogising me in the highest terms. Ought they not themselves to be excluded by their own showing? Or have they one flesh of fish and another of fowl (foul?) in their immaculate Sanhedrim?

"In order to break the force on the public mind of the new and successful treatment of Apoplexy without the lancet, the assertion has been industriously circulated that the patients were drunk—hence, not apoplectic. The maliciousness of this falsehood is only equalled by its absurdity and shortsightedness, since time and experience are sure to meet it with a daily refutation.

"In giving the following cases, I have not added the particular course of treatment pursued in each. To have attempted that, would have been to reproduce here a great portion of Dr. Dickson's book, and to swell my publication far beyond the limits designed. To the masterly production of that great author, I refer all who may wish to attain a knowledge of the greatest medical discovery of this or of any age."

Does Dr. T. complain that he is noticed too severely by the medical press? What claims has he on its forbearance? Why does he wish to have it known that he is a member of the New-York Medical Society, composed, as it is, of the very men whom he affects to despise and to charge with "*infamy*" and conduct worthy of the "penitentiary?" Meanly as Dr. T. professes to think of the regular faculty, he wishes the public to understand that he belongs to them. We are sorry the compliment is not reciprocal, and that the author is not satisfied with reflecting the light of chrono-thermalism, without appending to his name what, ordinarily, would be a mark of honorable distinction, but which, in the present instance, only proclaims his own dishonor. The profession would doubtless feel themselves honored by his never alluding to the fact that he was at one time a member of their body. When a medical man of respectable education casts aside all feelings of shame, and all the honorable principles which are supposed to bind together gentlemen—members of a common profession—and adopts a course at variance with the rules which are expected to regulate their conduct with each other and with society, and which form a part of their written law—resorting to the lowest acts of the empiric, we should feel that we had poorly discharged our duty; that we had indeed proved recreant to our trust, if we did not rebuke such conduct in the strongest terms which outraged truth, justice and honor demand at our hands.

Art. XVI.—*Principles of Human Physiology, with their Chief Applications to Pathology, Hygiene, and Forensic Medicine.* By William B. Carpenter, M. D., F. R. S., etc. etc. Third American from the last London Edition. With notes and additions by Meredith Clymer, M. D., Consulting Physician to the Philadelphia Hospital, etc. etc. With three hundred and seventeen woodcuts and other illustrations. Philadelphia: Lea & Blanchard, 1847. 8vo., pp. 752.

The fact that a third edition of the Principles of Human Physiology, by Dr. Carpenter, has been called for at the present time, is sufficient evidence in itself of the value placed upon it by the profession. In this edition we are informed that the author has added new matter to the amount of nearly one hundred pages, and that the whole has undergone a careful revision. Many new and neatly-executed wood engravings from original drawings have been introduced. Among the additions is a chapter on the "Varieties of the Human Race," also one on the "Primary Tissues." The author "has particularly directed his attention to the settlement of points which appeared to him to be left doubtful by others." The American editor, by the "liberality of the publishers, has been enabled to add numerous additional illustrations, which, accompanied by copious references, will be found to enhance the value of this edition, and to peculiarly adapt it to the Student of Physiology. There are one hundred and fifteen more woodcuts in this than in the third English edition, and one hundred and one more than in the last American." From this enumeration of the numerous additions made to this edition of Dr. Carpenter's Physiology, it will be seen that it possesses a decided advantage over the former ones. As a text book, it has been received into all our colleges; and from a careful perusal of this edition, we can recommend it to the student and profession at large as the best exposition of the present condition of Physiology within their reach.

PART THIRD.

American Intelligence and Editorial.

American Microscopes.—A good Microscope has become so essential to the physician, that no apology is needed for calling the attention of our readers to this subject. We scarcely know whether anatomy, physiology, or pathology is most indebted to its revelations; but we are certain that no one who wishes to push his researches into the very *penetralia* of the human body, will rest satisfied without being in possession of such an instrument. To it we are indebted for much of our knowledge of what takes place in the organism, as the capillary circulation, and the early processes of development both in plants and animals; to say nothing of the nature of those changes, which are constantly taking place as the result of abnormal action.

It gives us much pleasure to state, that we are at length enabled to procure a better microscope at home, than we are abroad, and at a much more reasonable price. We learned some time since, that Mr. Charles A. Spencer, of Canestota, N. Y., was manufacturing microscopes, telescopes, etc., equal in all respects to those imported; but it is not until very recently that we have been put in possession of facts and testimony, which establish beyond dispute, their superiority to all others. Professor Bailey, of West Point, in a recent letter to Professor Torrey, (dated Sept. 27th, 1847), thus speaks of one of Mr. Spencer's instruments.

"I have just had very great pleasure in an interview with Mr. Spencer, and in looking through his microscopes, I am proud as an American of their performance. You know we tried in vain with our highest powers to see the cross lines on the *Navicula Hippocampus*. Mr. Spencer's lenses show them beautifully, and they may even be seen by his middle power. He has shown me lines on several objects on which I could never beofre find any trace of them. I feel therefore no hesitation in pronouncing his microscopes *far superior to Chevalier's*, and they show all the lines in the most difficult objects, which I could see with the Lowell instrument, at Boston. This is a triumph for American art, in which we should all rejoice, and feel it a duty and pleasure to spread the knowledge of."

Mr. Spencer has been lately engaged to furnish as good a microscope as he can make, of the large Chevalier form, for the Smithsonian Institution, without regard to cost; also, one for Princeton and Geneva Colleges. The large Chevalier form, which costs with the duties and without polarizing apparatus, etc., $250, is made by Mr. Spencer, with a full range of powers, for $200; and with polarizing apparatus, micrometers, compressor, electric conductor, camera lucida, etc., for $225. The small Chevalier, which costs with these powers and no auxiliary apparatus, $100, is furnished by Mr. S. for the same price; and the same with a greater range of powers and apparatus, for $125 to $150. His vertical and oblique instruments, vary in price from $75 to $150, with lenses far superior to any of the Chevalier that we have examined. We confidently recommend Mr. Spencer's microscopes to all who wish to supply themselves with such an instrument, believing that their highest expectations will not be disappointed.

MEDICAL REFORM, THE LATE NATIONAL CONVENTIONS, ETC.—We have been highly pleased with the manner in which the profession generally have received the proceedings of the late Conventions; as indicated by the subsequent action of those local societies whose regular meetings have been held, and by the numerous notices in the medical periodicals of the country. We say the profession *generally*, because there are a few exceptions among the medical journals, or we should rather say, among the contributors to them, who have viewed the whole movement with decided disapprobation. But of this we do not complain, having full faith in the maxim, "that *truth*, when left free to combat error, will prevail." Neither would we trespass on the time and patience of the reader were we not desirous of entering our protest against some points which have been introduced into the discussions on this subject. The first point consists in making a comparison between our system of medical education and that of France, and other countries of Europe; and then basing the necessity or *non*-necessity of reform, on the results of such comparison. We object to such a basis, first, because it gives to the opponents of reform all the advantages of national pride and prejudice, influences which are often more powerful than facts or reason; and secondly, because it has no applicability to the case. For the question is not, whether the system of medical education pursued in this country is inferior or superior, or equal to, that of England, France, or Germany, or China or Hindostan; neither is it, whether the profession itself is equal in practical skill and energy to that of any other country. With the same propriety might the statesman cease his efforts to improve the laws and social condition of his country, on the grounds that they were already as good as those of other nations; a position, the absurdity of which, would be apparent to the dullest intellect. The only true questions relating to this branch of the subject, are, whether our system contains important defects; and if so, whether they admit of being remedied? If these two questions receive an affirmative answer, then, and not till then, does it become our duty to look ahead and avail ourselves of the experience of all nations in search of the best remedies. But another and far more objectionable point, consists in separating the mass of the profession and the professors in medical colleges from each other, and not only representing them as distinct classes, but as though they really possessed important conflicting or antagonist interests. Indeed, it seems to have been taken for granted by some from the very beginning, that all the movements in favor of reform, had their very origin in opposition to, and haters of the medical colleges; and that the only object of the advocates of reform, was to lay some restrictions on the action of those institutions. Now we protest against this course as alike illiberal, unjust, and derogatory to the dignity and welfare of the whole profession. It is illiberal, because it is imputing motives to others which their acts will not sanction; it is unjust, because not founded in truth; and injurious to the welfare of the profession, because it is directly calculated to excite and foster jealousies and prejudices, where mutual dependence should beget feelings of mutual cordiality and support. What real interests do the colleges possess in *opposition* to the interests of the whole profession? Will those professors who have so strenuously opposed all movements in favor of reform, *admit* that it is the interest of the colleges to graduate *ignorant* and *unqualified* men? If so, then indeed they have an interest, not only in opposition to that of the mass of the profession, but also in strong conflict with the dearest interests of all mankind besides. And the sooner it is understood, the better will it be for the cause of humanity. That some in their zeal for mere present advantage, may have acted on a policy so mistaken and ultimately ruinous, may be true. But if so, their course is not less certainly injurious to their own final prosperity, than to the interests of all around them; for if there is one truth clearly demonstrated by the experience of all ages, it is that colleges and all other institutions of learning, are sustained and patronized in proportion to the degree of sound education and enlightenment existing in the community on which they depend. Hence, no class of men has really a stronger interest in maintaining a high and liberal standard of education in the medical profession, than those connected with the medical colleges.

Whether they always have, or are now all of them acting up to this, their *real interest*, is another question, which we do not propose to discuss at present. If the foregoing sentiments are just, where is the propriety of the following sentiment recently put forth by a distinguished professor in the West? "In the first place," says he, "the Convention must be divided into two classes, viz.: the *reformers*, and those to be affected by the contemplated reformation. The first class embraced all the delegates from medical societies, and meetings of Physicians; the second, the professors of the medical schools. The *great object* of the first class was to place some restrictions upon the action of the second class," etc. And also the following: "That they," (the professors) "were in a small minority, and felt their weakness, and the utter inutility and hopelessness of opposition to the proceedings of the *reforming* gentlemen, however much they might disapprove, was very perceptible from their *weakness* and *humility*. Never have I seen more exemplary equanimity and *patient submissiveness*, nor a more striking exhibition of the Christian doctrine, 'when you are smitten on the one cheek, turn the other,' than were displayed during the meeting of the National Medical Convention." "Meekness and humility," "patient submissiveness," indeed! What a caricature on truth and common sense!

After the reader has dropped a tear over this "humility," let him glance his eye over the published proceedings of the Convention, and after noticing who took an active part in the proceedings and occupied a fair share of the time, let him turn to the stations of honor and influence. He will there find only the President, three out of four of the Vice Presidents, and the chairman of at least six out of the eight regular standing committes, belonging to that "small minority," composed of professors. Verily, their "submissiveness" must have been, officially at least, an *honorable* one.

We cannot pass on, however, without a few words of comment on the division made in the first part of our quotation. So far is that division from being true, that the cause of reform numbered no abler or warmer advocates than those found in the professorial ranks, and no more zealous opponents than were found among the lay delegates. Indeed, from what source have the profession received their first lessons on the necessity of reform? Has it been from those classically styled "miners" and "outs," by one learned writer, or the "*reformers*," as they are called by another? Let those who have had the pleasure of reading the introductory and valedictory addresses of such men as Caldwell, Harrisson, Drake, Mitchell, Moultric, Jackson, Dickson, and many others, all eminent professors, answer this question. We repeat then, that the interests of the profession and the professors are identical; that they are alike in favor of all possible advancement in the cause of Medical Education, and professional attainments. And if there was ever a movement affecting the interests of a large class of men, characterized hy a spirit of mutual concession, of noble forbearance, and a strong desire to harmonize all interests, so as to accomplish the great work of elevating and ennobling our profession, without even temporary injury to any, the *present* is that movement. Under the benign influence of such a spirit, much has already been accomplished; a standard of preliminary education has been raised, a permanent national organization has been effected, and an appeal made to the colleges in favor of their extending their courses of instruction. Neither has that appeal been made in vain; for though but two or three of the oldest colleges have formally extended their regular terms, yet the many in which extra preliminary courses have been announced, show too plainly to be mistaken, the influence that is abroad. Then let a frown of disapprobation rest on every effort to create sectional prejudices, or conflicting interests in the profession. But on the contrary, let professors and non-professors, continue to mingle with each other in the future meetings of the American Medical Association, in the same spirit that characterized the late conventions; let the over-zealous exercise patience, and the timid take courage; while all shall unite in honestly endeavoring to promote the integrity, the honor, and the usefulness of the whole profession, and every year will waft us rapidly on towards the highest degree of human perfection.

New-York, Sept. 29, 1847. N. S. D.

ADULTERATION OF DRUGS.

"New-York, October 20, 1847.

"To the Editor of the N. Y. Journal of Medicine.

"The September number of your Journal contains a communication from the College of Pharmacy, with your editorial remarks. These remarks, however pertinent to the subject, are calculated to convey the impression that we are engaged in the business of importing spurious drugs and chemicals, and selling them for pure and genuine. We therefore think proper to make this statement:—Some months ago we requested our house in London to order us a sample (100 pounds) of Blue Mass, containing 20 per cent. of quicksilver. It was in fulfilment of this order that we received a consignment of the blue mass which it is said Prof. Reed has analyzed, and found to contain 7 1-2 per cent. of mercury. We received and sold it as containing 20 per cent., and were justified in doing so by the price charged us in England. When we were informed of the result of Prof. Reed's analysis, we immediately stopped the sale, and offered to take back all that had been sold; a course we have always taken, and shall take, in the case of every article sold by us, which may prove inferior in quality. This is all our concern with the blue pill. The pretence that druggists who buy medicines of wholesale and commission merchants, to dispense them or sell at retail, are imposed upon or misled in the purchase of inferior articles, is too unfounded to deserve any other answer than can be gathered from the article in question. The price is an infallible test. Our customers require, and we consequently import and sell to them, blue mass at $1 20 per lb., and a common article at 75 or 80 cents. We have introduced into this market a number of medicinal preparations of the very highest quality, for those who will buy and pay for them. For those who require inferior articles we keep inferior articles, which we sell, and they buy, as inferior, and at a less price.

"Believing that the implied charge, in your remarks, against us, was not intended by you, we think you will not hesitate to insert this notice in reply.

"Your obdient servants,

"CUMMING, DODGE & CO., 43 Fulton."

Remarks.—It is due to Messrs. *Cumming, Dodge & Co.*, to state, that we had not the remotest intention of singling out their very respectable House, in the remarks we made in our last number, on the adulteration of drugs, as being guilty of the practices then referred to. Our remarks were of a general character, altogether, and were so understood, we believe, by our readers. We regret, however, to learn that Messrs. C., D. & Co., are in the habit of doing, what we severely censured, namely, importing drugs of an *inferior* quality, to accommodate those who wish to speculate or deal in such articles without regard to the effects of such a practice on the lives and health of the community. We do not accuse them, be it understood, as selling such articles as *genuine*; far from it; but what security have they, that those to whom they sell, will not retail them to physicians, and other retailers, as genuine drugs. It was this very practice of selling inferior articles of medicine *at all*, that we censured; and shall continue to do so, until we are convinced that dollars and cents are of more value than life and health. We have also some regard for the reputation of our professional brethren, who are every day suffering from unsuccessful practice, consequent on the use of adulterated and inferior medicines. This, in fact, is one of the great causes of the loss of confidence in the profession, which has recently occasioned so much surprise; and it will not be restored, until we can be certain that the medicines we use are of the *best quality* that can be obtained.

We do not retract one *iota*, then, of what we have said; on the contrary, we intend, before long, to open another budget, and show up the entire secrets of the spurious drug business, as practised both at home and abroad. We have only made a beginning, and we hope our good friends, the wholesale dealers, will bear with us, while we expose such practices as we think ought to be laid open, for the benefit of mankind in general, and physicians in particular. It is idle for Messrs. C., D. & Co. to pretend that druggists are not often imposed upon and misled by wholesale and commission merchants in the sale of drugs; and we are surprised that such intelligent and respectable gentlemen should set up such a claim. The facts of such a kind, within our own knowledge, are altogether too numerous, to allow us, for a moment, to admit any such exemption. Moreover, as Messrs. C., D. & Co. acknowledge that they have been deceived by "their own house in London," in relation to the Blue Mass, what right have they to pretend that they are not, and have not been, imposed upon by others, who would be altogether less scrupulous and careful in their dealings. The *price is not an infallible test*, according to Messrs. C., D. & Co.'s own showing—for they paid, themselves, as much for the Blue Mass, imported by them, as if it had contained 20 per cent. of mercury, whereas it contained but 7. They state that they were justified in considering it as genuine, "from the price charged in England"! We should have supposed that this single case might have opened their eyes to the fact that price is not an infallible test any where, or under any circumstances. If the original manufacturer and chemist is not deterred from practising imposition by the fear of detection, what is to prevent irresponsible and second-hand dealers from doing the same? We have no such confidence as this, in the immaculate honesty of commission drug-dealers, any more than we have in the honesty of any other class of men, where there are so many inducements, and so many facilities too, for deception and imposition. Messrs. C., D. & Co. have evidently a better opinion of mankind than we have. We trust they may not suffer more severely from misplaced confidence in future.

They tell us that they have "*good*" articles for those who want good, and will pay for them, and bad, or "*inferior* articles" for those who want inferior: thus manifesting a truly accommodating spirit to customers of every class. Now, we must be permitted to say, that we cannot reconcile such a practice with our notions of right and duty towards our fellow-men. This rule may possibly answer in relation to articles of trade and commerce, generally; but it will not do to apply it to *medicines;* articles on whose purity and genuineness, the success of the medical practitioner, in other words, the lives and health of the community, depend. We have no objection to Messrs. C., D. & Co. selling their dye-stuffs, their copperas, indigo, madder, logwood, etc., in this way, but we protest against their ordering or selling inferior medicines, those, we mean, for internal use, especially. *Who buys their inferior drugs?* Surely not the physician, for he never orders any medicine but of the *best* quality. We, at least, have never known one order a poor article, when he could get a good one. It is, then, the retail druggist and dispenser who purchases the inferior articles. Does *he sell* them for *inferior?* We put the question to Messrs. C., D. & Co. Do you, gentlemen, on your consciences, believe, that the medicines which are bought of you as inferior, are *sold* as such? You will say no such thing. We know our professional brethren throughout the United States too well to believe, for a moment, that they are influenced in the purchase of medicines, by the *price* of the article instead of its *quality*. Their own reputation, if no higher considerations, would prevent their employing adulterated or inferior articles, on which they could place no dependence.

No, no, gentlemen, you must reform your practice altogether. Keep no medicines but what are pure and genuine and of the best quality, and we will agree to use what little influence we have, that you do not suffer by so doing. At any rate, we beg our friends, (we hope we may call them such,) to consider this matter again, and see whether the positions we have taken, are not such as interest and duty prompt them also to sustain.

CIRCULAR

Of the College of Pharmacy of the City of New-York, addressed to the Medical and Pharmaceutical Institutions and to Physicians and Apothecaries of the United States.

The undersigned, a Committee of the Trustees of the College of Pharmacy, of the City of New-York, respectfully solicit your attention to the proceedings of the Board, on the 9th inst , viz :

" At a special meeting of the Board of Trustees of the College of Pharmacy, of the City of New-York, held August 9th, 1847, convened for the express purpose of taking into consideration the best measures to prevent the introduction, throughout the United States, of sophisticated and misnamed Chemical and Pharmaceutical preparations—it was unanimously

" Resolved, That the officers of this Institution be requested forthwith to call the attention of the Secretary of the Treasury of the United States to the fact that large quantities of spurious medicinal preparations are being introduced daily into this country, not only to the prejudice of the Custom House revenue and the honest importer, but in the sequel jeoparding the health and lives of all those who require medical aid throughout the land. That the Secretary of the Treasury be respectfully requested to apply the most stringent regulations within his power, to check this alarming growing evil.

" It was further Resolved, That the Philadelphia College of Pharmacy, and of other Colleges of Pharmacy and of Medicine, be officially requested to unite with us, in presenting memorials to Congress, to devise means to suppress this most dangerous fraud, by making all such sophisticated articles liable to forfeiture."

In accordance with our instructions, we respectfully ask your co-operation in a general call upon Congress, at its approaching session, for the passage of such a law as may effectually resist the villany of manufacturers and importers of base compounds, counterfeit and misnamed articles, intended for medicine, so far at least as it can be done, in their passage through the Custom House, by competent inspection, forfeiture and exposure of the shame now borne in secret by the participators in this traffic.

A few of many facts may be stated in illustration of the urgent necessity of such a law.

Bromide is imported and sold for Iodide of Potassium, some parcels being mixtures and others entirely Bromide. The Iodide is also adulterated frequently in large proportion with other salts of an entirely different character.

Blue Pill is imported containing a per centage of Mercury from 10 down to 7 1-2, mixed with blue clay and Prussian blue, to give the proper density and color. Two importations of this kind from the manufactory of William Bailey, of Wolverhampton, have been publicly exposed by this College in the newspapers, the first in the year 1845, and the second and worse lot during the present month. Its composition, according to the analysis of our Prof. Reid, is :

Mercury,	7·5
Earthy Clay,	27·0
Prussian Blue, used in coloring,	1·5
Sand in combination with the clay,	2·0
Soluble saccharine matters,	34·0
Insoluble organic matters,	12·0
Water,	16·0
	100·0

An account of the former, with the correspondence between our late President Adamson and Mr. Bailey, was also published in the American Journal of Pharmacy, Vol. 11., (new series.) p. 148. The latter appears in the New-York Journal of Medicine for September.

Very large quantities of Rhubarb, much decayed, the better parts of which are dark-colored, with scarcely any taste or smell, having probably been exhausted to make extract, come from England, invoiced there from 1 1-2 to 3 pence sterling per lb. It is intended and used for powdering, color being given to it by turmeric, etc.

The article called Oxyd of Zinc on the English labels, is generally Carbonate of Zinc, being imported at a price which precludes the possibility of honest preparation.

All that is received under the name of Precipitated Sulphur, (or "Lac Sulphur," as the merchants commonly term it,) except when it is expressly ordered from an honorable manufacturer, contains from 80 to 95 per cent. of Sulphate of Lime.

Opium is often invoiced at one-third the value of good quality, and is found upon examination not to be worth even that. The same may be said of Scammony.

Most of the foreign Extracts are not what they profess to be, and cannot be relied upon in the treatment of disease.

The salts of Quinine, Morphine, and all the more costly chemicals, are greatly adulterated.

We are informed by the agent of an English manufacturer of Chemicals, Extracts, and many other preparations used in medicine, that it is a regular and systematic business, carried on by his principal and others in his line, to make articles for the American market of different qualities, one for the Atlantic cities, and another, very much inferior, "for the West," meaning thereby our Western States. He gives us, for instance, the following quotations: "Compound Extract of Colocynth, 9s. 6d.; do. for the West, 5s."—the latter, as we are allowed to infer, containing no scammony at all, only the poorest sort of aloes, and but little, if any, colocynth, or extract from it. "Blue Pill, 3s. 9d.; for the West, 1s. 8d."

Is it wonderful that such enormous doses as we hear of, are taken, and indeed required at the West, and that disappointment everywhere is experienced by physicians in the action of medicines? And these examples are but few out of many that might be given. Our country is held an easy prey to the rascality of foreign counterfeiters, aided and abetted by domestic traitors, who trample down all considerations of the evils they inflict, or help to fasten upon their suffering fellow-men, in this unrighteous pursuit of gain. We, who have more of the prominent facts before our eyes, in this greatest drug mart of the Union, than come under the notice of others, and seeing the audacity with which this base trade advances, feel ourselves especially called upon to oppose it. We believe that stringent measures should be adopted by Government to suppress it altogether, and that to obtain the proper action on the part of Congress, it is but necessary to present the facts in connexion with the general corroborating testimony of Medical Institutions and Practitioners of Medicine and Pharmacy throughout the country, which we doubt not will be cordially tendered in support of our application.

We subjoin a copy of our proposed Memorial, which, if it be agreeable to you to second our efforts, you will adopt if you think proper, or—as we should prefer—set forth your convictions in your own form. We would respectfully suggest early action, as more likely to prove successful; and also the advantage of adding the signatures of Physicians and Apothecaries in your neighborhood, as far as may be conveniently practicable. Any communications on the subject (which may be addressed to our President) will be fully acknowledged, and all information that we have, freely given.

We are yours very respectfully,
JOHN MILHAU, *President.*
OLIVER HULL, } *V. Pres'ts.*
GEO. D. COGGESHALL, }
WM. L. RUSHTON, }
JAS. S. ASPINWALL, *Treasurer.*
JOHN SNOWDEN, *Secretary.*

New-York, August, 1847.

[MEMORIAL.]

To the Honorable the Senate and House of Representatives:

The Memorial of the College of Pharmacy, of the City of New-York, respectfully represents:

That large quantities of sophisticated and misnamed Chemicals and Pharmaceutical preparations are daily imported, not only to the injury of the Custom House revenue, and of the honest importer, but of dangerous effect upon the health and lives of all who require the aid of medicines such as they purport to be, throughout the country.

That with some unprincipled foreign manufacturers, aided and abetted by dealers of a kindred stamp in this country, it is a regular and systematic business to make different qualities of various medical preparations for the American market—the better kinds for the Atlantic cities, and others very much inferior "for the West," meaning thereby our Western States. The latter are generally altogether unlike what they purport to be, are quoted at about half prices, and are unfit for any use whatever.

That of an almost indefinite number of spurious and misnamed articles may be specified Iodide of Potassium, for which the Bromide is substituted, in whole or in part, and other salts, of an entirely different character, are also mixed in large proportion.

Blue Pill comes to us containing from 10 down to 7 1-2 per cent. of Mercury (the officinal proportion being 33 1-3 per cent.) mixed with blue clay and Prussian blue, to give it density and color—the following being the composition, by the analysis of our Professor Reid, of a lot which passed the Custom-House about the first of August:

Mercury,	7·5
Earthy clay,	27·0
Prussian blue, used in coloring,	1·5
Sand in combination with the clay,	2·0
Soluble saccharine matters,	34·0
Insoluble organic matters,	12·0
Water,	16·0
	100·0

Very large quantities of Rhubarb, much decayed, the better parts of which are dark-colored, with scarcely any taste or smell, having probably been exhausted to make extract, come from England, invoiced there from 1 1-2 to 3 pence sterling per lb.—entirely worthless trash. It is intended and used for powdering, color being given to it by turmeric, etc.

The article called Oxyd of Zinc on the English labels, is generally *Carbonate* of Zinc, being imported at a price which precludes the possibility of honest preparation.

All that is received under the name of Milk of Sulphur, except small lots expressly ordered from some manufacturing establishment of honorable character, contains from 80 to 95 per cent. of Sulphate of lime, (Plaster of Paris.)

Many of the foreign Extracts are not what they purport to be, and are entirely worthless as medicines.

Opium is often invoiced at one third the value of good quality, and is found upon examination not to be worth even that. The same may be said of Scammony.

The Essential Oils generally, the Salts of Quinine, Morphine, and all the more costly chemicals, are greatly adulterated.

These are some of the most important that come to us from abroad. Upon them the Physician depends, in many cases, for his success in controlling disease, we need hardly say, with frequent disappointment, the sufferings of the sick being protracted, other complications of disorder allowed to supervene, and life itself often sacrificed.

That numerous instances frauds, of the kind here spoken of, have been publicly exposed in the newspapers, by the authority of this College. Such exposures have undoubtedly proved of excellent service, so far as related to each particular fraud published and the extent reached by the publication, but this unpleasant and burthensome duty is greatly inadequate to the correction of the evil.

Your memorialists therefore pray your Honorable Bodies that a law may be enacted, declaring that all imported articles intended for medical use, which may appear to the proper Custom House Officer to be spurious, counterfeit, or adulterated, shall be subject to competent inspection, and if found to be of base character, confiscated and destroyed.

And your memorialists, &c.

[Proposed addition for signatures where this form of Memorial is adopted.]

The undersigned, Physicians, Apothecaries, [and others, as the case may be,] of ———, having examined the above Memorial of the College of Pharmacy, of the City of New-York, fully concur in the necessity and importance of the law prayed for, and solicit the favorable attention of Congress thereto.

Resignation of Professor Dickson.—At a meeting of the Trustees and Faculty of the Medical College of the State of South-Carolina, held on the 28th July, 1847, Prof. Moultrie, Dean of the Faculty, presented to their consideration a letter from Dr. Samuel Henry Dickson, in which he resigned the Chair of the Institutes and Practice of Medicine, with the most cordial expression of unabated friendship for his colleagues, and his best wishes for the continued usefulness and prosperity of the institution.

The letter of resignation having been read, on motion of Mr. Desaussure, it was

Resolved, That the same be accepted and entered on the Minutes.

Mr. Pinckney, after some remarks, in which he alluded to the early connection of Dr. Dickson with this institution, his long and eminent services as a Professor, and his high character and many amiable qualities as a scholar and gentleman, then offered the following additional resolutions, which were unanimously and cordially adopted by the Board, viz:

Resolved, That the Trustees and Faculty of the Medical College of the State of South-Carolina, in accepting the resignation of Prof. Dickson, desire to express the sincere regret with which they separate from one, who was not only an original founder, but has so long been a distinguished ornament of this institution, and who has reflected honor on his native State, by the eminent ability with which he has contributed to elevate the character of the Medical Profession throughout the South; and that they cannot part with him without some testimonial of his merits, and the expression of their best wishes for his prosperity and honor, in the new field of labor to which he has removed.

Resolved, That the Secretary of the Board be requested to communicate the foregoing resolution to Professor Dickson.

Resolved, That these proceedings be published in the daily papers of the city.

At an adjourned meeting of the Trustees and Faculty, held on Monday, the second of August, Professor Geddings was unanimously elected Professor of the Institutes and Practice of Medicine, and Dr. John Bellinger unanimously elected Professor of Surgery.

Dr. Dickson has accepted the Chair of the Theory and Practice of Medicine in the University of the City of New York, vacated by the death of Dr. Revere. With the Trustees and Faculty we deeply regret that he has left our College and city, to both of which he was an ornament, and we bid him farewell with every wish for his prosperity and happiness.

From the manner in which his place in the College has been filled, we feel confident, although the loss from his resignation has been great, that the prosperity and reputation of the institution will be fully sustained.—*Southern Jour. Med. & Phar.*

Congenital Tumor of the Scalp.—(Communicated in a letter from Dr. L. Woodworth of Johnson's Creek, N. Y., to the Editor.)

A novel case occurred in my practice about a week since. It was that of a *congenital tumor*, about the size of the child's head, weighing about two pounds. It proceeded from the posterior part of the head, the attachment being about two inches in diameter, covering the posterior fontanelle and upper part of the os occipitis. The head was otherwise deformed. The os frontis was flattened down so that there was no forehead, giving the head the appearance of what, in Phrenological works, is represented as the head of an idiot. The features and body is otherwise well formed, and of the usual size. I removed the tumor soon after birth. The tumor, on dissection, appeared quite vascular and of a liver-like appearance, except that there was a substance interspersed through it resembling the brain, having the convolutions distinctly marked upon it, which led me to suppose (whether correctly or not I cannot say), that a portion of the cerebrum had escaped through the posterior fontanelle, forming a nucleus for the additional growth of the tumor. and also causing the sinking in of the superior portion of the skull. The child is still living and doing well.

Johnson's Creek, *Sept* 21, 1847.

Annals of the Lyceum of Natural History of New-York.—We forgot to mention in our last No. the publication of Nos. 10 and 11, vol iv. of the Annals of the Lyceum of Nat. History. In this No. we have completed Dr. J. Leconte's *Catalogue of the Geodephagous Caleoptera* of North America, a paper which must have cost the indefatigable author immense labor and research, and which, it is presumed, no other man in the country could have written. An appendix will hereafter follow, containing descriptions of the new species received through the kindness of his friends. It is much to regretted that the Legislature of the State of New York has not made provision for completing the *Entomological History* of the State in the same splendid style as the other departments of Natural Science, already published. Major Leconte and son are the persons to whom this task would be assigned; and we trust that our next Legislature will authorize them to proceed with the work, which they are so well prepared to undertake. The present No also contains a paper by Mr. John H. Redfield "on the distinctive characters of *Cyprea Reticulata* of Martyn, and *Cyprea Histris* of Meuschen," which does much credit to the writer.

There is also a description of a new species of *Procellariæ*, (Duck) by George N. Lawrence, accompanied with a beautiful plate. We hope this publication, which is an honor to the scientific character of our country, will be well patronized by our profession.

Baptistæ Tinctoria.

Dear Doctor.—The following being scarcely worth a place as a separate article in your Journal, will answer as a note to your article on the *Sophora Tinctoria.*

Respectfully yours,

JAMES FOUNTAIN.

Taking a deep interest in the Medical Botany of my native country, I presume the following rough sketch will not be uninteresting to my fellow country physicians.

The plant commonly called Indigo Weed, the Baptista, or Sophora Tinctoria of Linn., grows so abundantly all over the county, is so easily recognised, and possesses such active properties, that it is not a little surprising that it has received so little attention.

About 30 years ago Dr. Thatcher noticed the plant in his Dispensatory, as being useful in cases of gangrene from deficiency of vital power, and in some other affections proceeding from the same cause.

In June, 1837, I was called to see Jacob Post, æt. 74, of an infirm habit.

He had been a free liver, but was infirm from age, and was troubled with almost constant diarrhœa. He had a large purple patch on his leg, just above the outer ankle of his left leg. His foot was cold. He was not feverish, nor otherwise seemingly more indisposed than usual. He had no pain in his leg or foot, but only a slight soreness. In a few days his foot was spotted over with similar patches, and finally they all coalesced. The cuticle shortly pealed off, and the whole foot was covered over with a soft, black, grumous coating.

Warm stimulants and astringents were freely used externally, and tonics and opiates internally, but to no purpose; the gangrene spread gradually but slowly upwards, so that by the end of the month his leg as far up as the middle of the calf, had become one putrid mass, with no cognisable line of arrest, but gradually loosing its aspect upwards.

His leg had now become so intolerably offensive, that I determined to remove it, to rid the family of the insupportable stench, for I had not entertained the least hope of saving his life.

On the 4th of July, my son amputated the leg below the knee. On removing the dressing, I found the surface of the stump, as I had anticipated, black enough. I now determined to try the indigo weed. I made a strong decoction of the fresh root, and with this I washed the part freely, and had the dressing wet continually. The gangrene soon spread up under the integuments, forming cavities and short sinuses. Into these I injected the decoction freely twice a day.

The medicines administered internally, were a decoction of oak bark, with a few drops of laudanum, and a pretty free use of his favorite drink, brandy. Suffice it to say, he finally recovered. and enjoyed excellent health and spirits something over three years, and finally died of influenza.

Another case, of a Mr. Merrit, was on hand a few miles distant, almost precisely similar to this, in a subject about as old, but of a better constitution. Finding my case doing well, his attendant amputated his leg, but it did not save him. He used only the means recommended in surgical works generally but did not use the Tinctoria.

Since then a similar case on the back of the hand, and on one finger, came under the care of my son, of a very threatening aspect. It yielded to the Tinctoria similarly used.

Several minor cases have occurred in my practice, tending to strengthen my confidence of the great value of the plant. Its activity has, as yet, prevented my using it internally. It doubtless possesses tonic, stimulant and astringent properties in great activity, especially in its green state.

[We respectfully solicit from practitioners of medicine, especially those in the country, brief notes, like the above, on the medicinal properties of our indigenous materia medica; they will be embodied in a Treatise on that subject, which is now in course of preparation, and may thus be instrumental in accomplishing much good.—*Ed. N. Y. Jour. Med.*]

ERECTION OF AN EDIFICE FOR THE BUFFALO MEDICAL COLLEGE.—We are gratified in being able to announce to our readers, that a sufficient sum has been subscribed by the citizens of this place, to secure the erection of a commodious and ornamental edifice for the Medical Department of the University of Buffalo. With the conviction that a suitable structure is alone necessary to place the school on a permanent basis, and secure its prosperity, the friends of the institution have just reason to congratulate themselves on the liberality and public spirit which have so promptly and efficiently responded to their appeal. The building at present occupied by the College is leased for a short period, and although it answers exceedingly well for the present, is not adapted to meet the prospective wants of the institution. The new edifice will probably be erected during the next summer.—*Buffalo Med. Jour., Sept.*

NEW-YORK ACADEMY OF MEDICINE.

Notice.—We are requested by the "Committee of Arrangements," to give notice that the Anniversary meeting of the New-York Academy of Medicine will be held at the Broadway Tabernacle, on *Wednesday the 10th November* instant, at 7 o'clock in the evening; and to extend an invitation to the profession generally to attend, with their friends, upon that occasion, when an Oration will be delivered by Dr. John W. Francis.

NEW-YORK SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The *Anniversary Dinner* will take place at the *Astor House, on Wednesday, 17th November*, at 7 1-2 o'clock P. M. Those members of the Medical profession who feel an interest in the objects of the Society, are invited to participate. Price of Tickets, $3 00.

JOHN G. ADAMS, EDW'D L. BEADLE,
WM. P. BUEL, AB'M DUBOIS,
J. H. BORROWE, J. R. VAN KLEEK,
JAS. R. WOOD,
Stewards.

[Dr. Washington.—As a substitute for a notice of the late lamented Dr. Washington, we copy the following from the Annalist of Sept. 15th, as better than anything we could prepare, and by no means too eulogistic of the deceased. The deceased was a member of the New-York Academy of Medicine. Dr. Barrowe has been "appointed to prepare his eulogy."—*Ed.*]

On Monday afternoon, October 30th, after a short and severe illness, Jas. A. Washington, M. D., in the 46th year of his age.

The unexpected death of the late J. A. Washington, M. D., has cast a gloom over the profession. One little week before it, and he was in unusually good health. Dr. W. was a native of one of the Southern states, and settled among us some fifteen years ago. He rose rapidly into eminence, and continued to the last to enjoy a very extensive and highly respectable practice. His loss is deeply regretted by his patients, who valued him not less as a physician than as a friend. Dr. W.'s manners were remarkably pleasing and affable. He was a very amiable man: singularly free from detraction, and had, we believe, no enemies. To the sick, whether rich or poor, he was unremittingly attentive, and it is even thought, by those who knew him best, to have injured his health by an excess of devotion to their interests. He was a sincere and practical Christian; in the duties of life, exemplary and irreproachable. Dr. W.'s professional character was unblemished. In consultation, he was candid, liberal, and wholly unassuming. In practice, he abounded in resources. He was a man of much information in his profession, and carefully kept pace with its progress. But a little while ago, Dr. W. made a short visit to Europe, and his health was rather deteriorated than benefitted by the journey.

In the death of Dr. Washington, the profession has lost one of its most estimable and respectable members; the public a faithful and devoted servant and friend. A large number of his sincerely sorrowing brethren, in testimony of their esteem, attended his mortal remains to their final abode; and his spirit, it is permitted to hope, was prepared for the awful change which so suddenly overtook him. "*Nunc placida compostus pace quiescat;*" and his memory will live in the hearts of all who knew him, as that of a good man, and an honorable and benevolent physician. Oblivion should not be allowed to rest upon a career so creditable, alike to humanity and to his profession, of which, if he did not augment the resources, he at least enhanced the respectability.

The *post-mortem* examination was made by Dr. Sabine, 18 hours after death. Present, Drs. Parker, Delafield, and Borrowe. The following is the account of the autopsy, as communicated to the editor of the Annalist, by Dr Sabine:

External Appearances.—The body is not emaciated, but slightly jaundiced, and decomposition is commencing about the neck; on the abdomen are marks of leech bites, and a blister.

Head.—Not examined.

Chest.—Heart, normal. Left lung—upper lobe united by very old adhesions; the lung otherwise normal. Right lung—in the summit of the upper lobe was found a small obsolete tubercle, about the size of a buck-shot, while the posterior part of the lower lobe was congested.

Abdomen.—The subcutaneous cellular tissue loaded with fat about one inch in thickness. The muscular tissue was red and firm; on dividing the peritoneum, the omentum was found matted together, and lying over to the right iliac region, and adherent to the caput coli, where it formed part of the walls of a fœcal abscess, which was situated in the right iliac and lumber regions; the remaining portion of the walls of this abscess was formed partly by the caput coli, folds of the ileum, and the peritoneal lining of the walls of the abdomen; it was lined by a recently formed grayish false membrane; the cavity was about the size of a hen's egg, containing a small quantity of light-brownish colored feculent matter; at the lower part of the abscess, the appendix cœci vermiformis was found in a gangrenous condition, and on its careful removal, it was found obstructed by a small body about the size and shape of a bean, lodged about half an inch from its connection to the cœcum. Beyond this, the vermiform process was gangrenous; there was a small perforation at its extremity, from which the feculent matter had escaped. The mucous coat of the caput coli was red, thickened, and covered with small granules of lymph; the remaining portion of the colon was healthy. Several folds of the ileum and jejunum were adherent by recently-formed lymph, but there was very little effusion into the abdominal cavity.

Stomach and spleen, normal.

Liver about its natural size, of a yellowish granular structure; the gall bladder was filled by dark, greenish, inspissated bile; gall ducts clear.

Kidneys.—The left enlarged, and in the early stage of granular disease; right, healthy.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

On the Function of the Red Corpuscles of the Blood, and on the Process of Arterialization. By George Owen Rees, M. D.—(*Proceedings Royal Soc.*, June 3d., 1847.) The author states that he was first led to the new theory he has formed for the explanation of the chemical phenomena of respiration, and more especially of the change in the color of the blood which occurs in that process, by having observed that a garlic odor, similar to that evolved from phosphorus, was produced by agitating in distilled water, the clot obtained from some specimens of venous blood. His attention was consequently directed to the investigation of the state in which the phosphorus exists in the blood; and the result of this investigation was the theory, of which the following is a succinct outline.

The venous corpuscles are known to contain fat in combination with phosphorus. This compound ingredient of the corpuscles, on coming into contact with atmospheric oxygen during the respiratory act, is consumed, and combining with that oxygen, forms the carbonic acid and water which are expired, and also phosphoric acid, which, uniting with the alkali of the liquor sanguinis, forms a tribasic phosphate of soda. This salt, like many others, acts upon hæmatosine in such a manner as to produce the well-known bright arterial tint.

The analyses which the author has performed, in order to test the correctness of this theory, were made upon the blood, both of the veins and of the arteries, of the same animal; and also upon separated portions of the same venous blood; one of which portions had been artificially arterialized by having been brought into contact with air, while the other portion had not been so exposed. These comparative experiments showed that arterial blood, both when obtained from the vessels, and when artificially produced, contains in its serum a larger proportion of tribasic phosphate of soda than that obtained from the veins. The venous corpuscles, as they are contained in the clot, yield a fatty matter combined with phosphorus; while those from arterial blood yield a fat, the ashes of which manifest an alkaline reaction. Thus the venous corpuscles are shown to be acted upon both by respiration and by the artificial arterialization of the blood, in such a manner as to lead to the formation of tribasic phosphate of soda, at the expense of the phosphorus they contain.

No exact quantitative analyses were attempted by the author, the comparative experiments having been performed on small portions only of serum (from 25 to 40 grains); sufficiently large, however, to furnish satisfactory evidence of the actual presence of the phosphate in arterial blood, and also in those portions of venous blood which had been arterialized out of the body; while no such indications were obtained from similar portions of the blood contained in the veins.

At the conclusion of the paper, the author notices the experiments of Enderlin, in which no alkaline carbonate could be detected in the ashes of blood; and shows that this is the natural consequence of the phosphates of the clot being oxidized during combustion, and thus supplying a quantity of phosphoric acid sufficient to decompose completely the alkaline carbonate produced by the incineration of the lactate and albuminate of the serum. Most specimens of serum, even as obtained from arterial blood, yield an alkaline carbonate when incinerated; and this is always the case with the serum of venous blood. The author, therefore, thinks himself warranted in regarding the conclusion founded on Enderlin's experiments, that the blood contains no lactate, as being erroneous.—*Am. Jour. Med. Sciences.*

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Structure of the Ganglia of the Spinal Nerves. By Rudolph Wagner. (Comptes Rendus, May 10th, 1847.)—The discovery of the true structure of the ganglia, or at least of the ganglia of the spinal, trifical and pneumogastric nerves is an important one for the physiology of the nervous system. I found the same conformation first in the torpedo, and afterwards in the ray and shark. Each elementary fibre which comes from the root of a cerebral or spinal nerve is prolonged into a ganglionary globule, (nervous corpuscle) in which a nucleus and nucleolus may be seen. From each ganglionary globule another nervous fibre arises, which extends into the peripheric branches of the corresponding nerves. Sometimes the medulla of the fibre is seen clearly to penetrate into the ganglionary globule itself; at others, more delicate nervous fibres arise from them and the primitive fibres gradually enlarge and assume the ordinary appearance.

I was astonished, continues Dr. W., at this structure of the ganglia, which must certainly be the same in man and the other vertebrata. This discovery will change our views of the physiology of the nervous system, and the course we have pursued. But anatomy will always be the basis of physiology.—*Southern Jour. Med. and Phar.*

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Experiments on the Properties and Functions of the Spinal Cord and their relation to those of the muscles. By M. Brown Sequard. [Comptes Rendus, May 10th, 1847.]—From experiments on frogs, M. Sequard shows that after the division of the spinal marrow, the animal retains the power of contracting the muscles of the posterior extremities; that the strength of the contractions diminished for some time after the division, but that it gradually increased, and at two hours after the operation, the contractile power is twice as great as before the operation. Twenty-four hours after, it is three times as great as before; it remains at this from five to twenty days, and then gradually declines to below the natural standard. The force of the contractions was measured by weights attached to the feet by small hooks. The experiments were instituted to test the independent action of the spinal cord as a generator of nervous power, as proclaimed by Marshall Hall, and fully confirm it.—*Ib.*

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Are the movements of the Heart dependent on the Spinal Cord and Brain? By Dr. Julius Budge. [Gazette Med. de Paris, June 5th, 1847, from Arch. Fur. Physiol.]—After passing in review the whole subject, historically and experimentally, Dr. Budge arrives at the following conclusions:

1. The Medulla Oblongata is the central organ of the movements of the heart, inasmuch as it maintains the irritability of the voluntary muscles.

2. The Medulla Oblongata is also the central organ of the reflex movements of the heart; but its influence is not marked, because,

3. The movements of tho heart are principally movements of irritation, and partake very little in the reflex movements of the rest of the body.

4. The ganglia of the sympathetic nerve are not the central organs of the movements of the heart; they neither produce nor keep up its rhythm, but appear to destroy the influence of the voluntary and reflex principle.

5. The brain (of the frog) has no direct evident influence on the movements of the heart, but a decided indirect influence."—*Ib.*

SURGERY.

Wounds and Injuries of the Abdomen.—General Conclusions. By G. J. GUTHRIE, F. R. S.

1. Severe blows on the abdomen give rise to the absorption of the muscular structures, and the formation in many instances of ventral hernia; this may, in some measure, be prevented during the treatment, by quietude, by the local abstraction of blood, and by the early use of retaining bandages.

2. Abscesses in the muscular wall of the abdomen, from whatever cause they arise, should be opened early; for although the peritoneum is essentially strong by its outer surface, it is but a thin membrane, and should be aided surgically as much as possible.

3. Severe blows, attended by general concussion, frequently give rise to rupture of the solid viscera, such as the liver and the spleen, causing death, by hemorrhage. When the hollow viscera are ruptured, such as the intestines of the bladder, death ensues from inflammation.

4. Incised wounds of the wall of the abdomen of any extent rarely unite so perfectly (except, perhaps, in the linea alba) as not to give rise to ventral protrusions of a greater or less extent.

5. As the muscular parts rarely unite in the first instance after being divided, sutures should never be introduced into these structures.

6. Muscular parts are to be brought into apposition, and so retained principally by position, aided by a continuous suture through the integuments only, together with long strips of adhesive plaster, moderate compression, and sometimes a retaining bandage.

7. Sutures should never be inserted through the whole wall of the abdomen, and their use in muscular parts, under any circumstances, is forbidden; unless the wound, from its very great extent, cannot be otherwise sufficiently approximated to restrain the protrusion of the contents of the cavity—the occurrence of which case may be doubted.

8. Purgatives should be eschewed in the early part of the treatment of penetrating wounds of the abdomen. Enemata are to be preferred.

9. The omentum, when protruded, is to be returned, by enlarging the wound, through its aponeurotic parts if necessary, but not through the peritoneum, in preference to allowing it to remain protruded, or to be cut off.

10. A punctured intestine requires no immediate treatment. An intestine, when incised to an extent exceeding the third part of an inch, should be sown up by the continuous suture recommended in pages 26 and 27.

11. The position of the patient should be inclined towards the wounded side, to allow of the omentum, or intestine, being closely applied to the cut edges of the peritoneum. Absolute rest, without the slightest motion, should be observed. Food and drink should be restricted when not entirely forbidden.

12. If the belly swells, and the propriety of allowing extravasated or effused matters to be evacuated seems to be manifest, the continuous suture or stitches should be cut across to a certain extent, for the purpose of giving this relief.

13. If the punctured or incised wound is small, and the extravasation or effusion within the cavity seems to be great, the wound should be carefully enlarged, and the offending matter evacuated.

14. A wound should not be closed until it has ceased to bleed, or until the bleeding vessel has been secured, if it be possible to do it. When it is not possible so to do, the wound should be closed and the result awaited.

15. A gunshot wound penetrating the cavity can never unite, and must suppurate. If a wounded intestine can be seen or felt, its torn edges may be cut off, and the clean surface united by suture. If the wound can neither be seen nor felt, it will be sufficient for the moment to provide for the free discharge of any extravasated or effused matters which may require removal.

16. A dilatation or enlargement of a wound in the abdomen should never

take place, unless in connection with something within the cavity rendering it necessary.

17. When balls lodge in the bones of the pelvis, they should be carefully sought for and removed, if it can be done with propriety and safety.

18. In a wound of the bladder, an elastic gum catheter should be kept in it, until the wound is presumed to be healed; unless its presence should prove injurious from excess of irritation, not removed by allowing the urine to pass through it by drops, as it is brought into the bladder.

19. In all cases in which a catheter cannot be introduced, in consequence of the back part of the urethra or the neck of the bladder being injured, an opening for the discharge of the urine should be made in the perineum.

20. The treatment of all these injuries must be eminently antiphlogistic, principally depending on general and local blood-letting, absolute rest, the greatest possible abstinence from food, and in some cases from drink, the frequent ministration of enemata, and the early exhibition of mercury and opium, in the different ways usually recommended, with reference to the part injured.—(*Ranking's Abstract.*)

Treatment of Chronic Cystitis by injections of a solution of Nitrate of Silver.—Dr. Robert L. MacDonnel, in an interesting paper in the *British American Journal of Medical and Physical Science*, (Sept., 1847,) extols, in strong terms, the efficacy of injections of nitrate of silver, in chronic inflammation of the bladder,—a disease which has proved very refractory to other remedies, and which entails on those who labor under it, the most exquisite suffering. In proof of the value of the remedy, he relates four cases, one of which is the following:—

"A gentleman consulted me last February, under the following circumstances. He had suffered for some months from inflammation of the bladder, marked by frequent desire to pass water, accompanied by heat and scalding, violent straining, pain in the region of the bladder, above the pubis and in the perineum, and a constant feeling of heat and weight in the lower portion of the abdomen. These symptoms gradually increased in severity. The urine became at first bloody, and afterwards purulent, and the desire to void it became so urgent, that it had to be yielded to at last every fifteen minutes; the discharge of the fluid being followed by pain and scalding at the neck of the bladder, and along the course of the urethra. His general health became impaired; and his sleep being so frequently disturbed, a haggard and anxious expression of countenance, and extreme irritability of the system, were soon established.

"When he first consulted me, fully one-half of the fluid passed from the bladder was pure pus; and after repose, a deposit of blood-globules was found to intervene between this and the supernatant urine—the latter being highly alkaline, fetid, and albuminous. Examined microscopically, it exhibited some scales of nucleated epithelium, a large deposit of triple phosphate in prismatic crystals, pus, and blood-globules. There was no pain in the loins or along the ureters. He had a stricture of long standing, about one inch from the orifice of the urethra. In addition to the above characters, the urine was frequently mixed with tenacious masses of lymph, varying in length from half an inch to an inch,* and entangling a quantity of earthy matter; they frequently obstructed the passage of the urine through the stricture, and required to be broken up and squeezed through by the pressure of the patient's fingers.

"Having dilated the stricture, so as to allow a large-sized catheter (No. 11, Weiss) to pass, I determined to treat the disease by injections of nitrate of silver; and accordingly, on the 17th of February, I injected into the bladder a lotion composed of eight grains of lunar caustic, two drachms of tincture of hyoscyamus, and four ounces of distilled water.

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* C'est encore dans les cas de suppuration, qu'on trouve des productions pseudo-membraneuses dont parlent les auteurs. C'est l'expulsion de ces fausses membranes par l'uréthre qui a fait répèter à tant de medicins que la tunique muqueuse de la vessie pouvait être entièrement detachée et expulsée par portions avec les urines.—Ferrus, Dic. de Méd., Art. *Cystite.*

"The injection caused hardly any inconvenience, except that of inducing a strong desire to empty the bladder, which was prevented by compressing the penis, until the fluid had been in the bladder for about one minute, when it was allowed to escape. The next day, the patient stated that he was somewhat better, but the quantity of pus and blood was not, however, much diminished, and the flakes of lymph were more numerous and larger than before. Although he continued improving, yet, as the amendment was not as rapid as I anticipated, injection of the viscus was again resorted to on the 5th of March. On this occasion, the quantity of caustic was increased to sixteen grains in the four ounces of distilled water, and the hyoscyamus was omitted. A decided improvement immediately followed; the frequency of making water was greatly diminished; instead of requiring to be voided every fifteen minutes, the bladder could retain its contents for more than two hours at a time, and the quantity of pus had greatly decreased. An injection, of the same strength, was again employed on the 28th of March, and with happy results. The urine could now be retained for three or four hours; was passed without pain or scalding; was clear and transparent, and, to the naked eye, free from pus; but, when examined microscopically, a deposit of pus-globules and some epithelial scales were perceptible. On the 18th of April, I repeated the injection, and since then he has been completely free from any symptoms of his troublesome disease; he has resumed his former mode of life and pursuits, and has been subject to various changes of temperature whilst travelling, without experiencing the least return of his former symptoms."

The method of injecting the bladder which Dr. MacDonnell has found most efficient is the following:—

"The patient being placed either in the erect position or on a sofa, a gum elastic catheter, about the size of No. 9 or 10 (Weiss,) is introduced, and water at the temperature of 98° Fahr., is injected through this into the bladder, by means of a caoutchouc bag, or, what I prefer, a syringe, with a "three-way valve," by which the fluid can be drawn back from the cavity if necessary. After the bladder has been completely cleansed of any fetid urine and mucus which may be contained in it, the solution of the caustic being heated to the same degree, is to be introduced in a similar manner, and allowed to remain there for about one minute, care being taken, by compressing the urethra, to prevent its being forcibly ejected by the violent straining that is certain to be induced. The quantity of water or solution should never exceed four ounces, for though the bladder in its healthy state is capable of containing nearly a pint and a half of urine, without being over-distended, yet as the quantity it is capable of retaining in severe chronic inflammation. seldom exceeds a few table-spoonfuls, the bladder accommodates itself to its diminished contents, and gradually becomes smaller, and consequently, a large injection would act injuriously in two ways—by over-distending the organ, or by passing up into the ureters. In fact, we find it unnecessary to use a larger quantity of the solution than I have mentioned, for it requires some address to introduce even that amount without resorting to force. The patient is then ordered a warm bath, and should the urine become bloody or mixed with shreddy concretions, he should use frequent fomentations and anodynes. But these symptoms seldom last for more than a few hours, and our patient should always be informed that such consequences are likely to be the immediate effects of the operation.

"My patients have not suffered from retention of urine, which it appears frequently follows the use of the solid nitrate in the practice of Lallemand, nor have they had any inconvenience which was not readily allayed by an opiate.

"The advantages which I consider the solution of nitrate of silver possesses over that substance in a solid form are, first, that we can employ it of various strengths, from one to four grains, or even stronger if necessary.

Secondly, we are certain that the application comes in contact with the entire diseased surface. Thirdly, we are also satisfied that it does not act more violently on one part than on another. Fourthly, it is more readily employed by an inexperienced operator; and, above all, it cannot possibly be attended with any risk, from the apprehension of which it is not easy to divest the mind, when using the *porte-caustique* of Lallemand; and together with the above advantages, it has this also to recommend it, that it will be found at least equally successful."—*Amer. Jour. Med. Sci.*

Treatment of Dissection-wounds.—D. Hargraves recommends the following as a simple, and in his experience, efficacious plan of treating dissection-wounds. It is applicable to the fingers and the thumb, the parts most frequently liable to be wounded:—Wash them well for a few minutes in cold water, then suck them; immediately after apply a ligature a little above the cardiac side of the wound with such tightness as will induce decided congestion, which will be indicated by the color of the parts; some blood will also flow from the injured surface, and a certain degree of numbness will follow its application. The ligature is then to be firmly tied and knotted, and allowed to remain on for at least twelve hours; I have kept it on for double that period, and still pursued my professional engagements.

The physiology of such treatment is explained by the ligature causing a permanent stasis in the fluids of the part injured on its distal side, and producing a well-marked plethora there; the greater the amount of it, the greater will be the impediment to absorption. The constriction caused by the ligature, will also oppose a barrier to the return of the venous and lymphatic fluids into the system, consequently to their being circulated through it, so that the poison is prevented entering into the constitution and destroying it, and will then be eliminated locally from the part where it was first applied; thus suffering and pain will be obviated, and life, valuable to all, will be preserved.—*Dublin Med. Press.*

Removal of a Portion of the Substance of the Brain for Cancer. Temporary Recovery. By M. Sanson.

In the year 1834, Mr. B. came to Paris for the purpose of undergoing an operation for a cancerous tumour of the orbit; the growth had acquired the size of the head of a fœtus. Pains in the limbs and some degree of previous paralysis, showing that the brain was in all probability implicated, induced Professor Sanson at first to set aside all idea of an operation. But, the patient having expressed his settled determination to destroy himself if the operation was not proceeded with without delay, M. Sanson consented to operate in presence of several British practitioners, fellow countrymen of the patient. A portion of the frontal, the nasal, and maxillary bones, having been removed, the dura mater was found to be affected, and was likewise excised, but the cerebral substance itself was occupied by the disease; and after a short conference, in which Sanson alone persisted in the opinion that it was his duty to achieve the operation he had begun, one ounce and a half of cerebral substance was removed by a section which penetrated into the lateral ventricle. The cerebral vessels were cauterized with a heated probe, and the patient recovered completely from the effects of this tremendous operation—no paralysis, no disturbance whatever of the cerebral functions having been observed. Sixteen months after, the patient died in consequence of reproduction of the growth in the scar, and on dissection the disease was found to extend as far as the posterior cerebral lobe. (*Med. Times.*)

Burns treated with Ammonia.—M. Guérard, Physician to the "*Hotel Dieu,*" has used, for upwards of twenty years, a concentrated solution of ammonia* in burns of the first and second degrees. He has frequently happened to burn himself with charcoal, phosphorus, gunpowder, etc., and the immediate application of this remedy has always arrested any further development. When the ends of fingers are burnt, he plunges them in the liquid without admixture of water. If the seat of the burn was such as to prevent this immersion, he would cover it with a compress dipped in the ammonia, and would prevent its evaporation by covering it with dry cloth. In such cases it is necessary to repeat the application from time to time, whenever the heat or sensation of burning returns. As soon as the ammonia is applied, the pain ceases; and the relief continues longer, in proportion to the strength of the solution. According to what M. Guérard has himself experienced, he believes that the application should be continued at least an hour, in order to give permanent relief, after which the burn may be left without any further dressing. If the burn be extensive, one hour will not be sufficient, but then the patient will be apprised of it by the return of pain. M. Guérard does not believe this application adapted to cases in which the skin is removed. The pain is immediately relieved, no phlyctæna are developed, and the cuticle dries and finally falls off like parchment. It is well to observe, that if the application has been made to an extensive surface, the compresses should be handled with forceps, for concentrated ammonia very rapidly vesicates the skin in the healthy state. The patient, as well as dresser, should also avoid breathing the vapor, and the vessels used should be made either of tin or of earthenware, inasmuch as copper is readily acted upon by ammonia.

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* Aqua Ammonia, we presume.—*Trans.*

The use of ammonia in burns is not new. Physicians have long since observed that it prevents in such cases the development of inflammation. It has been seen, however, that it is especially suitable for burns of small extent, and in which the skin is not excoriated, that M. Guérard advises the use of this caustic. Thus far we see no objection to recommending its trial to practitioners. As to burns involving a large surface, it requires more circumspection. There are efficacious means in more common use, such as the oleo-calcareous liniment and carded cotton, prolonged cold baths and fomentations with iced-water. There is at this time a case at the *Hopital St. Louis*, in which the most happy results have been obtained with cold water.—[*Translated from Jour. des Conn. Méd.-Chir.—Bull. Gén. de Therap.*, April, 1847.] —*South. Jour. Med.*

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

Quinine in Acute Articular Rheumatism.—Several French journals have lately directed attention to the employment of quinine in acute rheumatism. We are informed that it was M. Briquet, now one of the physicians of La Charité, Paris, who first administered it in this disease. The success which he obtained could scarcely vanquish the repugnance which many had to prescribing so energetic a medicine. Some unfortunate cases, also, in which, from the dose being too large, or the individuals peculiarly predisposed, alarming accidents, and even death had been caused, added to the discredit inwhich it was at first held. At present, however, a re-action has taken place in its favor, and a considerable number of the hospital physicians in Paris are of opinion that, given with prudence, in moderate doses, beginning with 1½ grammes to an adult, and 75 gr. to a child, the sulphate of quinine causes effects of a slightly energetic nature only, at most trifling cephalalgia, noises in the ears, and slight indistinctness of vision.

Amongst the physiological effects, one of the most interesting, without doubt, is the depressing action which it exerts on the circulatory system, the pulse daily diminishing in force and frequency. In a few days the pulse has been known to fall fifty beats, and that without the individual experiencing any very well-marked symptoms of intoxication. Another important effect, is the modification it produces in the rheumatismal pains. In general, at the end of 12 or 24 hours the patients are considerably relieved; the swelling and rigidity, however, still remain. Unfortunately this result is not always constant and durable, but there are exceptional cases, for in the great majority of instances, the amelioration is rapid and permanent. It has been objected to this treatment that it does not prevent the cardiac complications which are so likely to arise. But do we know any absolute means of doing this? Do we not see rheumatic pericarditis develop itself in individuals treated by the most energetic antiphlogistics? But in some cases it has been observed that the cardiac disease has diminished daily under the use of sulphate of quinine.

On the whole, the treatment of acute articular rheumatism by sulphate of quinine, when employed with prudence, is without danger. Doubtless, it will not succeed in every case, but where is the remedy that will? Whenever there is no amelioration on the third or fourth day, notwithstanding that the dose has been gradually increased, the medicine should be discontinued, and some other treatment employed, such as bleedings, nitrate of potass, colchicum, opiates, &c. But whenever the pains are rapidly diminished, and the pulse rendered less frequent, it is very probable that the articular rheumatism will be cured on the eighth day. In one case it only continued four days. Sometimes it is useful in robust and phlethoric subjects to precede the use of sulphate of quinine, by a bleeding from the arm. It may be added that the drug is easily administered, that children take it without hesitation, notwithstanding its bitter taste, and that it will, probably, be of the greatest service in the treatment of acute rheumatism in young persons, a period of life when blood-letting, if not injurious, is seldom advantageous.—*Month. Jour. Med. Science, from L' Unio Medicale*, 23d Fevrier, 1847.

Nitrate of Strychnia externally in Gout.—M. Wendt recommends the nitrate of strychnia, in the form of ointment, in irregular gouty affections; for example, in gouty affections of the vertebral column, which, through the filaments of the great sympathetic, attack the chest, and give rise to symptoms imitating angina pectoris. The formula recommended is as follows:—nitrate of strychnia 10 parts; axunge 8 parts: to be made into a perfectly homogeneous ointment, and applied by friction on the sides of the spine two or three times a day.—*Am. Jour. Med. Science, from Gazette Medicale de Paris*, 13 Mars, 1847.

On Bronchitis. By. Dr. Thomas Laycock, Physician to the York Dispensary, and Lecturer on the Theory and Practice of Medicine.

Sometimes there is little or no expectoration during or after an attack of bronchitis; but there is a most teasing cough. In such a case an opiate is indicated, and may be safely given; but you must be very careful how you prescribe opiates in bronchitis. If the cough is excited by the mucus contained in the bronchial tubes, and not by an irritable condition of the nerves or their lining membrane, it is nature expelling an injurious thing. The mucus *must* be got rid of somehow, and I do not know how it can be got out of the tubes except by coughing. If you give an opiate, it is true that you give the natural effort a quietus, but at the same time, you paralyze the sensory nerves. You paralyze the muscular fibres; and at last, when the mucus has accumulated to such an extent that your patient must cough or die, he cannot cough! Old people are often complaining of their violent morning cough—as soon as they awake they begin; but it is because mucus has accumulated in the bronchi during the night, and it is only perceived by their mucus membrane when sleep ceases—the sentinels have been dormant. But the mucous *must* be expelled, and, therefore, the patient *must* cough. The plan in these cases is to reduce the blenorrhœa; first, by taking care that the membrane is not irritated by cold air, and then by suitable remedies. In the meanwhile preach patience to your patient, and tell him his cough is his safeguard so long as the lungs are clogged with phlegm. Sometimes mothers go to a druggist for "something for a cough" that their children had: they get oxymel of squills and syrup of poppies, give a good dose to quiet the babe at night, and in the morning send for the doctor—its cough is stopped, it is "closed in the chest," its lips become livid, and you have to repair the mischief done by the opiate.—*Med. Gaz. Jan.* 1847.

On the Treatment of Dysentery. By Dr. W. Baly—[In the Gulstonian Lectures this year, Mr. Baly gives an account of the treatment which he has for several years found most successful in the treatment of the dysentery which prevails in the Milbank Penitentiary. First as to that form of the disease which has chiefly the character of inflammation of the larger bowel, he says,]

The chief means I have found successful in these cases, and the means which have rarely failed, where the dysentery was not complicated with some other diseased state, are blood-letting, the administration of calomel with opium, and gentle aperients. General blood-letting has seldom been required, but free local blood-letting by means of leeches has never been omitted when there was well-marked tenderness of the abdomen; or in the absence of tenderness, when the other symptoms indicated the existence of active inflammation in some part or other of the large intestine. The application of leeches, in the number of twelve or twenty-four, has been repeated several successive times at intervals of some hours, when the symptoms were urgent, and were not readily subdued by the means first used.

The calomel and opium have generally been administered in doses of two grains of the former, and one-third or half a grain of the latter medicine, every three, four, or six hours, as long as the character of the evacuations and the state of the local and general symptoms indicated the existence of inflammation, or until the state of the gums showed that the system was affected by the mercury. In the more severe cases, the production of this effect on the system to the full extent was required; but when the disease was of only moderate severity, it was generally subdued so quickly, that the mercurialization of the system to a further extent than was manifested by a slight swelling and tenderness of the gums was unnecessary.

Mild aperients also have been found most useful in perhaps the majority of the cases, but especially in those where the lower part of the large intestines was the seat of the disease, and where the fæces were retained, so that the evacuations consisted almost entirely of mucus, tinged or mixed with blood. In these cases the administration of one, two, or three drachms of castor-oil has produced free feculent evacuations, and has afforded great relief to the symptoms The beneficial effect produced by the action of this mild aperient medicine has often been very remarkable, greater than I know how to explain; while evil seemed always to result from allowing more than twelve hours to pass without obtaining a free feculent evacuation, if the frequent discharge of bloody mucus and other signs still indicated the persistence of inflammation. In many cases, however, no aperients whatever were required, free discharges of the feculent contents of the bowels taking place spontaneously. Indeed, where the cœcum and ascending colon were the seat of the disease, the active stage of the inflammation was almost always attended with copious discharges of liquid fæces, and the subsidence of the inflammation was in a great measure evidenced by the less frequent occurrence of these discharges, and their less liquid character.

[When calomel, though given as above indicated, increases the irritation, mercury with chalk, and Dover's powder, should be substituted. In every form of dysentery, strict attention to diet is highly important; meats, broths, and succulent vegetables, should be withheld, till we may fairly suppose the mucous membrane to be in a natural condition, or they will protract the cure. In the chronic form of the disease the best astringents were found to be tincture and infusion of catechu and sulphate of iron; respecting their employment, Dr. Baly observes:]

But although astringent measures are most valuable means in the treatment of chronic dysentery, their action, according to my observation, should never be carried so far as to produce actual constipation of the bowels, for this has almost always been followed by an aggravation of the disease. Opiate remedies too, though generally highly serviceable, and even essential, have sometimes arrested the secretion or excretion of the bile, and have thus produced an injurious effect on the local disease as well as on the general health of the patient. In such cases it has been found necessary either to omit altogether the use of opium, or, diminishing its dose, to combine with it some dandelion or rhubarb.

[When opiate enemata fail to check the tenesmus and bloody discharge, a few ounces of black wash, with a drachm of laudanum, may be injected.]

Other stimulant injections, as solution of nitrate of silver, have appeared useful under similar circumstances, but on the whole, the black wash with laudanum has been found the preferable remedy. At a later stage, when the inner coat of the bowel, having mortified, was becoming detached, similar stimulating injections have appeared to aid the process of separation, and the healing of the solutions of continuity. At all events, the discharges from the bowels, during their use, have become more healthy. Advantage has been derived also from these remedies, especially from injections of a weak solution of sulphate of zinc, when, in the still more chronic stage of the disease, a copious secretion of purulent fluid has taken place from the ulcerated surface of the lower bowel. The discharge has rapidly diminished in quantity, and there has been every possible evidence that the healing of the ulcers was promoted.—*Med. Gaz., March* 26, 1847.

Treacle as a local Remedy for Rheumatism.—Mr. Vines stated to the Reading Pathological Society, a case where a patient was suffering from rheumatic pains of the legs, and had been treated by eminent men in various ways without relief, when an old nurse recommended the legs to be wrapped in flannel soaked in treacle for some days, which procured him complete relief. He therefore thought there was some sedative influence in the treacle.—*Prov. Med. and Surg. Journal.*

Treatment of Inflammatory Induration of the Cervix Uteri by deep Cauterization with Potassa Fusa.—Dr. Simpson's own observations fully confirm the recorded opinions of Dr. Bennett and others regarding the general dependence of leucorrhœa upon inflammatory ulceration and induration of the cervix uteri. He has found inflammatory enlargement and induration of the tissues of the cervix very frequent in practice, and existing, in fact, in most cases of very chronic and aggravated leucorrhœa. In practice he has seen it mistaken for the induration and ulceration of carcinoma, &c. Formerly, in the treatment of these common cases, Dr. S. employed the frequent local application of leeches, and counter-irritation to the sacrum, &c., with the use of pessaries of mercurial and iodine ointment, keeping the indurated tissues imbedded in those applications, &c. The cure in this way is tedious, and months are often required before the indurated parts become reduced. Various local escharotics, partly to destroy the indurated tissues by direct decomposition, and partly to soften down the remainder by new inflammatory action, have been in modern times employed for the same purpose, and with much more certain and expeditious effect. Dr. S. has in this way employed, in a number of cases, nitrate of silver often applied, Vienna paste, (*potasse cum calce*), and nitric acid. He states the particulars of a case which he had treated successfully four years ago with nitric acid, and he had lately seen the patient in perfect health; it was at the time supposed that she had cancer uteri. Latterly, D. S. has abandoned these and other escharotics, and now always uses the common *potassa fusa.* He has found it far more manageable, speedy and certain, than any other method. He uses it of course through the speculum, applying a stick of it freely with a proper caustic holder, to the ulcerated and indurated tissues. It requires to be rubbed or held *strongly* for a time against the part which is to be destroyed. In general, a piece three-quarters of an inch, or an inch long, is melted down. The decomposition produced by it often causes a hissing sound. If the induration is extensive, and the whole cannot be removed at once, increased action and absorption are set up in what remains, and the parts adjacent become softened and diminished in size. Absorption in this way is truly one of the results or consequences of inflammation, though still an undescribed *termination.* In some aggravated cases, two or more applications of the caustic are required at intervals of eight or ten days. Dr. S. has never seen pelvic cellulitis or any other bad result follow. The appearance after the operation is as if a portion had been clean cut out with the knife. A large quantity of vinegar and water is immediately thrown up through the speculum to neutralize the potassa, and prevent it from injuring the sound parts. A copious purulent discharge usually follows for several days, requiring the use of astringent washes, or zinc ointment pessaries. When the whole of the induration is once removed, the remaining ulcer heals rapidly and permanently. An ulcer over an indurated part may be cicatrized, but it is almost certain to break out again and again, till the induration itself is reduced.—*Month. Jour. Med. Sciences*, July, 1847.

Cynanche Laryngea, or Acute Œdema of the Glottis.—Dr. Budd endeavors to show that the disease known to practitioners under the above title is really erysipelas, commencing in the fauces, or in their neighborhood; and that it has been generally supposed to be confined to the larynx, and has been named laryngitis, in consequence of its often proving fatal before the erysipelas has had time to spread far from this part.

In support of this view, he relates five fatal cases of this disease that have recently occurred in London; one in his own practice in King's College Hospital; three in the Dreadnought, the particulars of which were given him by Mr. Hudson; and one in Charing-Cross Hospital, under the care of Mr. Avery, which has been published in the medical journals.

These cases, the author observes, were clear examples of the same disease; but they did not all begin exactly in the same manner. In three, the inflammation commenced in the fauces; in one, it commenced in the parotid gland; and in one, the first appearance of it was an erysipelatous blush at the angle of the lower jaw.

In all cases, the inflammation soon spread to the glottis, and produced there the same effects—namely, redness, and great thickening of the epiglottis, and of the lips of the glottis, with effusion of sero-purulent fluid in the submucous cellular tissue to such a degree as, in three of the cases, to produce almost sudden closure of the glottis, and consequent suffocation.

In three of the cases in which death occurred within a few hours after the inflammation of the glottis came on, and within twenty-four or thirty-six hours from the commencement of the malady, the inflammation had not time to spread far, and the air-tubes and lungs, and other organs, were sound.

In the other cases, which were more protracted, the inflammation had spread down the air-tubes, and there were marks of inflammation in the chest, and an infiltration of a sero-purulent fluid in the loose cellular tissue of the neck.

The occasional connection of laryngitis with erysipelas was noticed by Dr. Cheyne, in his article on Laryngitis in the "Encyclopædia of Practical Medicine;" and again by Mr. Wood, in a paper published in the seventeenth volume of the "Medico-Chirurgical Transactions." The first person to treat expressly of it was Mr. Ryland, of Birmingham, in his works on "Diseases of the Larynx."

The author cites the facts related by Mr. Ryland, and observes, that they prove conclusively that inflammation of the larynx, causing great swelling of the lips of the glottis, and infiltration of fluid in the submucous cellular tissue, and thus leading to speedy suffocation, occasionally results from the poison of the erysipelas.

He considers the following circumstances favor the opinion he has expressed as to the nature of the disease:—That the inflammation spreads in the same mode as in erysipelas of the skin, presenting the deep redness and swelling, and infiltration of a serous or sero-purulent fluid, which occur in that disease; that it is more fatal than ordinary laryngitis; and that it occurs most frequently amongst the inmates of hospitals in which erysipelas prevails, and amongst such of them as are peculiarly liable to erysipelas:—viz., convalescents from continued fever, or eruptive fevers, and those laboring under secondary syphilitic ulcers.

In the treatment of this disease, making a number of punctures on the back of the tongue and fauces with a sharp bistoury, is recommended; and two cases are related in which this operation, performed every two or three hours, proved successful.* The same measure was long since re-copied in practice by Lisfranc. Tracheotomy offers a valuable resource if performed sufficiently early. (*Rankin's Abstract.*)

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MISCELLANEA.

Mesmerism.—The learned Editor of the Dublin Quarterly Journal of Medicine, in a review of Colmick on Insanity, speaks as follows on the subject of mesmerism:—

"It is now manifest that all the phenomena of modern mesmerism have occurred, on a great scale, as symptoms of cerebral or mental disease; paralysis of all the senses and of motion; rigidity or flaccidity of the muscles; complete insensibility to pain; obedience of the functions of animal life to the will of the operator; development of apparently new intellectual powers; belief in clairvoyance, the spiritual life, and all the remaining phenomena of somnambulism, have been seen, not in isolated examples, but occurring in hundreds, we might say thousands of cases. We implore our medical brethren to bear these facts in mind, and not to lend their sanction to the more than contemptible delusions practised and patronized in the present day. But little acumen is required to understand the master-trick of mesmerism, namely, the power of reading the thoughts of the magnetizer. In the diseased condition induced by the manipulations of mesmerism, one of the most remarkable characters is the excitement of the brain; the subject is endowed with exquisite penetration, and a look or movement, totally inappreciable to the bystanders, is at once seized, and the order acted on. The clairvoyance is true so far as the patient is concerned; that is to say, he believes that he sees what he has never seen, and his descriptions are easily swallowed as truths by the weak and credulous. It is melancholy to reflect on our ignorance, when we find such things believed. Why do the mesmerized limit their clairvoyance to the description of the interior of houses and furniture, old gentlemen sitting in chairs, ladies reading, or the arrangement of furniture? Why do they not tell the fate of armies; anticipate the bulletins of battles; declare the advent of revolutions, the state of markets, or the result of every great undertaking of man in any part of the earth? In a word, why are they not the electric telegraphs of the round world? But why pursue this further? Until the education of the better classes is improved, we must expect to witness these follies and ignorances.

"We have spoken of the feigned and unfeigned phenomena of mesmerism. In the present day there are two classes of somnambulists; one, those who, though at first innocent victims of this excitement, become from repetition, as it were, demoralized, and then, making a trade of their condition, exhibit a mixture of real and feigned phenomena. These are generally women in the pay of the travelling adventurer. In the second class are to be placed individuals who have been accidentally, and for the first time, brought under the operation of mesmerism. The itinerant mesmerizer arrives in some locality, and exhibits his servant, a person already rendered susceptible to the diseased condition, and too often demoralized, so as to feign and assist voluntarily in exciting wonder. The more remarkable phenomena are then exhibited on this individual, and then the production of sleep and muscular paralysis, and rigidity in some of the bystanders, is accepted as proof of the "truths of mesmerism." We are sorry to see medical men even witnessing these exhibitions; the production of disease for the purpose of public amusement or excitement, ought not to be countenanced by a profession whose calling is to repress or remove disease; and if anything was wanting to increase this feeling, it is the quantity of falsehood and delusion, voluntary and involuntary, which is mixed up with the whole matter.

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* Reported in Lancet, &c., March, 1847.

"Diseased excitement of the nervous system, whether we consider the body or mind, is producable in many persons by various means; and the special conditions of somnambulism, ecstasy and convulsion, are accompanied by various phenomena, according to the circumstances of the case, and the physical and moral character of the subject. The great error lies in the mal-interpretation of the phenomena, and the belief in the existence of a special influence or fluid passing from the operator to the patient. Let it never be forgotten, that all these phenomena, without any exception, have existed in epidemic diseases, and that they still recur spontaneously as symptoms of ordinary nervous malady. And, when it is recollected that for three centuries Europe was tormented to the heart by this very disease, in an epidemic form, the guilt and folly of re-producing it, or any one of its symptoms, artificially, cannot be too strongly reprehended. We have heard of a case in which confirmed epilepsy was the consequence of repeated mesmeric operations on the innocent child of an amateur, a result not to be wondered at, for it is in the very nature of nervous diseases, that, when once produced, they are liable to return, either in their original or some other form. There is also another and more grievous result—we mean the demoralization of the individual so operated on—a condition equally produced in cases of badly treated hysteria. In time, however, the advance of knowledge will dispel these delusions, and we hail the increasing connexion of Mesmerism with Phrenology and Homœopathy as a good omen, for the history of such quackeries shows that they thrive best when standing alone in their falsehood. In the meantime, let us call upon the profession to discountenance all these follies and delusions, and to so study the subject, that we may be prepared to guide the public mind, still so ignorant on all physiological and pathological subjects. We have never believed in the old adage, that a little knowledge is a dangerous thing, for knowledge is in itself so excellent, that the smallest portion of it is invaluable; and we hold it to be imperatively called for, that our universities and public schools should see that some instruction in the first principles of medical science should be given to the students of divinity and law, and to that class which is to constitute the nobility and gentry of the country. Were this done, quackery would have fewer supporters. The bar would exhibit greater knowledge of medical jurisprudence, and we would not see the clergy so frequently supporting a system of falsehood and demoralizing error."

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